REPORT RESUMES

ED 019 119 PS 000 827

FINAL REPORT ON HEAD START EVALUATION AND RESEARCH--1966-67 TO THE INSTITUTE FOR EDUCATIONAL DEVELOPMENT. SECTION III, INFLUENCING ATTITUDES OF PARENTS AND TEACHERS THROUGH REWARDING CHILDREN.

BY- MANDEL, DAVID MARC

TEXAS UNIV., AUSTIN,CHILD DEVELOP.EVAL.AND RES.CTR

REPORT NUMBER IED-66-1 PUB DATE 31 AUG 67

REPORT NUMBER OEO-1410

EDRS PRICE MF-$0.75 HC-$5.28 130P.

DESCRIPTORS- SOCIALLY DISADVANTAGED, *REWARDS, *TEACHER ATTITUDES, *MOTHER ATTITUDES, CHANGING ATTITUDES, NEGROES, MEXICAN AMERICANS, POST TESTING, PRESCHOOL TESTS, BEHAVIOR RATING SCALES, *ACADEMIC ACHIEVEMENT, *COMPENSATORY EDUCATION PROGRAMS, ANALYSIS OF VARIANCE, ABILITY IDENTIFICATION, HEAD START, PPVT, PSI, BEHAVIOR INVENTORY,

SIXTY-NINE MEXICAN AND NEGRO PRESCHOOL CHILDREN RANGING IN AGE FROM 5 TO 7 YEARS TOOK PART IN A STUDY TO FIND OUT IF MATERIAL REWARDS GIVEN TO HEAD START CHILDREN WOULD AFFECT THE ATTITUDES OF MOTHERS AND TEACHERS TOWARDS THE CHILDREN. BOTH MOTHERS AND TEACHERS RATED THE CHILDREN ON THE HEAD START SOCIAL BEHAVIOR INVENTORY, AND MOTHERS ALSO ESTIMATED THEIR CHILDREN'S ABILITIES TO DO TASKS ADAPTED FROM THE CALDWELL PRESCHOOL INVENTORY (PSI). THE CHILDREN WERE PRETESTED ON THE PSI AND THE PEABODY PICTURE VOCABULARY TEST, THEN GROUPED INTO EXPERIMENTAL AND CONTROL CLASSES. TWICE A WEEK FOR THE NEXT 5 WEEKS EACH CHILD IN THE REWARDED CLASSES WAS GIVEN A TOY AND A BAG OF FRUIT WITH A NOTE FROM THE TEACHER STATING THAT THESE WERE REWARDS FOR THE CHILD'S PERFORMANCE IN SCHOOL THAT DAY. NONREWARDED CHILDREN TOOK HOME ITEMS MADE IN SCHOOL THAT DAY SUCH AS SCHOOL VALENTINES AND CUT-OUTS. AFTER 5 WEEKS, MOTHERS AND TEACHERS AGAIN RATED CHILDREN'S BEHAVIOR, AND MOTHERS AGAIN ESTIMATED TASK ABILITY. ALL CHILDREN WERE GIVEN A POSTTEST OF TASKS AND A PARALLEL FORM OF THE PRETEST ACHIEVEMENT MEASURE. ANALYSES OF VARIANCE OF THE DATA SHOWED THAT MOTHERS' ATTITUDES DID NOT CHANGE AS A RESULT OF REWARDS BUT THAT TEACHERS' ATTITUDES WERE POSITIVELY AFFECTED. AN APPENDIX INCLUDES FACSIMILES OF TESTS AND SCALES USED. THIS STUDY WAS DONE IN PARTIAL FULFILLMENT FOR DOCTORAL DEGREE REQUIREMENTS. (MS)

ED019119

FINAL REPORT ON
HEAD START EVALUATION AND RESEARCH: 1966-67

(Contract No. 66-1)

TO

THE INSTITUTE FOR EDUCATIONAL DEVELOPMENT

By

The Staff and Study Directors

CHILD DEVELOPMENT EVALUATION AND RESEARCH CENTER

John Pierce-Jones, Ph.D., Director

The University of Texas at Austin

August 31, 1967

Section III: INFLUENCING ATTITUDES OF PARENTS AND TEACHERS THROUGH REWARDING CHILDREN

By

David M. Mandel

PS000827

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

INFLUENCING ATTITUDES OF PARENTS AND TEACHERS THROUGH REWARDING CHILDREN

by

DAVID MARC MANDEL, B.A.

DISSERTATION
Presented to the Faculty of the Graduate School of
The University of Texas in Partial Fulfillment
of the Requirements
For the Degree of
DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS
Austin, Texas
August, 1967

PS 000827

Dedication

To the people who most influenced me,
Morris, Mary, Jules, and Gene.

ACKNOWLEDGMENTS

This research was completed only through the contribution of much effort and time by several people, many of whom were my close friends.

First, I would like to express my sincere appreciation to the Austin Public School System, especially to Mr. Lipscombe Anderson, Project Director; Mr. Gordon Moore, principal of Palm School, and his staff, Mrs. Walker and Mrs. Whitson; Mrs. Mayna Bode, principal of Mathews School, and her staff, Mrs. Bell and Mrs. Walker; Mrs. Dorothy Ebert, principal of Ortega School, and her secretary, Mrs. Thompson. Of course, I am deeply indebted to the Head Start teachers, Mrs. Williamson (Palm), Mrs. Knippa (Mathews), and Miss Frank (Ortega), without whose generous cooperation and concern this study would not have been possible.

No one could have asked for more patience, help, understanding, and encouragement while doing research than that received by me from my friends. My most sincere gratitude goes to Renato Espinosa, John Farrance, Kay Fincher, Perfecto Garcia, Tom Mandeville, Rene Quintanilla, Norma Rodriguez, and Don Witzke for the many hours spent in testing children, interviewing parents, and in translating the instruments during the initial stages of the study. I would like to thank Donald Williams, Charles Benjamin, and Jose Soto-Padin for their personal support and help in clarifying my thinking on the many problems which arose concerning this study. Sincere appreciation is extended to Carole Morse for typing the initial drafts and to Lois Winn for typing the final draft. I want to also thank Keith McNeil for his help with the analysis of the data.

Finally, I would like to express my appreciation to the members of the Doctoral Committee: Dr. John Pierce-Jones, Chairman, and Drs. Ira Iscoe, Jon Jecker, Victor Appel, and Jackson Reid, all of whom contributed significantly to my graduate education as well as to this dissertation.

David Marc Mandel

August, 1967

This study was supported by funds provided through Contract No. 1410 between the Office of Economic Opportunity and the Institute for Educational Development (IED) and Contract 66-1 between IED and The University of Texas at Austin.

TABLE OF CONTENTS

Chapter Page

I. INTRODUCTION 1

Background 2

Focus of Study 6

II. REVIEW OF SELECTED LITERATURE. 10

Theoretical Bases. 10

Deprivation Effects. 13

Parent Attitudes and Child Development 15

Education and the Socially Disadvantaged 16

Summary. 19

III. THE PROBLEM. 21

Specific Hypotheses. 22

IV. METHOD 29

Selection of Subjects and Interviewers 29

Description of Instruments 31

Description of Procedure 36

General Design 40

Procedure of Data Analysis 42

Specific Predictions Based on Hypotheses 43

TABLE OF CONTENTS-Continued

Chapter Page

V. RESULTS 47

Hypothesis I. 47

Hypothesis II 48

Hypothesis III. 51

Hypothesis IV 52

Hypothesis V. 53

Hypothesis VI 54

Hypothesis VII. 55

Hypothesis VIII 57

VI. DISCUSSION AND FURTHER ANALYSES 59

VII. CONCLUSIONS AND IMPLICATIONS. 78

Summary 82

REFERENCES. 85

APPENDICES. 89

VITA

LIST OF TABLES

Table		Page
1.	Schematic of Procedural Design	41
2.	Examples of Procedures Used for Computation of Absolute and Directional Dependent Measure Scores	44
3.	Absolute and Directional Mean Change Scores on the Parent Behavior Inventory for the Rewarded and Nonrewarded Groups.	48
4.	Absolute and Directional Mean Change Scores on the Teacher Behavior Inventory for the Rewarded and Nonrewarded Groups.	49
5.	Absolute and Directional Mean Change Scores on the Attenuated Teacher Behavior Inventory for the Rewarded and Nonrewarded Groups.	50
6.	Mean Pretest BIT Scores and PPVT Scores for High and Low Discrepancy Groups.	51 - 52
7.	Absolute and Directional Mean Change Scores on the Child Preschool Inventory for Rewarded and Nonrewarded Groups	52 - 53
8.	Absolute and Directional Mean Change Discrepancy Scores Between Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups	53 - 54
9.	Absolute and Directional Mean Change Discrepancy Scores Between High Discrepant Mother-Child Dyads in the Rewarded and Nonrewarded Groups	54 - 55
10.	Absolute and Directional Mean Pretest and Posttest Mothers' and Teachers' Ratings for the High and Low Mother-Child Discrepancy Groups	55 - 56

LIST OF TABLES-Continued

Table Page

11. Absolute and Directional Mean Posttest Mothers' and Teachers' Ratings for the Rewarded and Nonrewarded Groups 57

12. Absolute and Directional Mean Performance Estimates of Mothers' Own Children Versus Children in General for Rewarded and Nonrewarded Groups 58

13. Directional Mean Change Scores on the Child Preschool Inventory for Rewarded and Nonrewarded Mexican-American and Negro Groups. . . .63 - 64

14. Relative Magnitude and Directional Mean Change Discrepancy Scores Between Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups 66

15. Relative Magnitude and Directional Mean Change Discrepancy Scores Between Negro and Mexican-American Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups 67

16. Relative Magnitude and Directional Mean Change Discrepancy Scores Between Negro and Mexican-American High Discrepancy Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups 72

17. Directional and Mean Discrepancy Scores Between Mothers' Estimates of Their Own Children Versus Other Children on the Parent and Other Child Preschool Inventory for Discrepancy, Ethnicity, and Sex Groups. . . . 76

LIST OF FIGURES

Figure Page

1. Factorial Design With Two Levels of Reward and Two Levels of Discrepancy Groups 42

CHAPTER I

INTRODUCTION

Investigators have used two general approaches in trying to understand culturally deprived or socially disadvantaged children. The first approach has been to describe the social, cognitive, or emotional characteristics which seem idiosyncratic to this population; the second has been to introduce educational intervention programs in an effort to help these children to overcome their deficits in learning readiness and to promote academic and social growth.

Justifying retention of an intervention program necessitates investigations which will not only evaluate its present efficacy, but which will also provide information that will increase its effectiveness. To accomplish the latter, experimental manipulation of variables already operating within a given program, as well as the controlled introduction of other variables not already in the program seems requisite. For example, there is a large body of empirical findings based on different theoretical notions concerning the motivating effects of reward on behavior change (Cofer and Appley, 1964).

A selection of studies representing the two general approaches mentioned above is presented in the following section.

BACKGROUND

While there has been a growing concern with the welfare of socially disadvantaged children for approximately the last forty years, it was not until rather recently that much research had been done to elucidate their particular characteristics. Since about 1950, most of the studies have devoted at least some attention to the identification or confirmation of those behaviors which are assumed to prevail within this group (Gordon, 1965).

Three groups of general characteristics have been delineated by Havighurst (1964) which seem to define those who are socially disadvantaged:

Family Characteristics

> The socially disadvantaged child lacks:
>
> (1) the type of family conversation in which the children's questions are answered and encouraged.

(2) the type of family environment that sets an example of reading, and provides a variety of stimulation.
(3) parents who reinforce the value of education and reward good school achievement.

Personal Characteristics

Citing Deutsch's findings (In Passow, 1963), the socially disadvantaged child has:
(1) inferior auditory and visual discrimination.
(2) inferior judgment concerning time, number, and other concepts. These inferiorities are due to learned habits of hearing, seeing, and thinking.

Social Group Characteristics

Generally, the socially disadvantaged:
(1) have rural backgrounds, i.e., they are either Negroes from southern rural sections, whites from rural or mountain sections, or Europeans with a rural background.
(2) are cultural groups who are most discriminated against by the dominant society, e.g., Puerto Ricans, Mexican-Americans, Negroes.
(3) are the poorest (economically) people in the country.

Another set of identifiers falls under the rubric of Behavioral Characteristics, which are believed to express a socially disadvantaged child's distinctive background (Glatt, 1965). For example, it seems that parental rejection during the child's early formative years is associated with direct expressions of aggression (Riessman, 1962, p. 27).

Antonovsky (1959), in a study dealing with mother-child relationships which was conducted at a welfare center, found that children's aggressive behavior was positively related to the degree of restriction imposed by the mother and negatively related to demands and punishments. Initiating behavior (help-seeking) was positively related to the affectional contact within the mother-child dyad. Regarding learning behavioral styles, Riessman (1962) states that the socially disadvantaged child is typically a physical learner. This is evidenced in several ways: (1) he usually does better on performance tests than on verbal tests of intelligence, (2) he often uses his fingers when counting and moves his lips when reading, (3) he prefers to engage in sports rather than nonactive aspects of the school curriculum, and (4) he likes to draw. Larson and Olson (1963), taking a more experimental approach in identifying socially disadvantaged children, have compared this group's differences in language development, self-concept, and social skills using a pre-post design to differentiate behavioral patterns.

It may be important to describe clearly the differentiating characteristics of the socially disadvantaged child, but before embarking on an extensive educational intervention program, one should understand that disadvantagement is a relative notion--relative to the social systems, to one's in-group and out-group, to the time, place, and particular situation (Glatt, 1965). The relativeness of the concept of the socially disadvantaged child is effectively expressed by Lipton (1962) as follows:

> _The socially disadvantaged are_ . . .
>
> Children or a group of people living in a socio-economic environment which reflects an income of a certain quantity and a home condition of a certain quality and which in turn reflects attitudes towards academic and social behavior, towards authority and of certain mores which _are not acceptable to the person who is describing the group_ (pp. 17-19).

This definition suggests that regardless of socio-economic status, educational level of parents, ethnic affiliation, and other indices of social class, _all_ children have domains of strengths, weaknesses, feelings, fears, and academic abilities. To understand the parameters of these domains, we must not only "eliminate from our perceptions the negativism towards _difference_" (Culbertson, 1965), but as Mackler and Giddings (1965) and Gotts (1966) contend, we must refrain from viewing the socially disadvantaged as a uniform group and consider them instead in a less global fashion. Gotts suggests that any intervention program--compensatory education, for example--may yield quite different outcomes in members of different ethnic groups (or subgroups within the masses referred to as the socially disadvantaged). An implication here is possibly that within any given intervention program, we may find different outcomes within a seemingly uniform group.

FOCUS OF STUDY

Before initiating an educational intervention program, one possible approach is to describe the defining characteristics of a given socially disadvantaged group of children. A second, and perhaps more meaningful, approach in implementing such programs might be to search for, include, and evaluate those factors which have the greatest influence in sustaining whatever positive changes we can effect. For example, it is reasonable to assume that, if we can effect positive changes in a child's school achievement, attitudes, mental health, etc., the maintenance of such changes would be contingent upon the degree of concomitant change in the same directions in those who most influence the child--his parents and his teachers.

Riessman (1963, p. 8), in questioning certain aspects of educational programs for the socially disadvantaged, claimed that, even though the programs were successful in helping pupils achieve and continue in school, their effectiveness was due primarily to the changed attitudes of both the child and his parents. Much of the current research being done in compensatory education programs has already recognized the necessity for parental involvement with the school and the child's progress, and many innovations have been initiated to facilitate such involvement (Gordon and Wilkerson, 1966). This idea has been supported ty Liddle and Rockwell who clearly state that if we are to have a significant effect on a child's motivations and values we must strengthen and change the family's interaction with its children.

Harrison's (1963) study suggests that a child's motivation and achool achievement are associated with his self-image and cultural experiences, both of which are facilitated by favorable attitudes (held by parents and teachers) toward school programs. Bush's (1954) findings suggest that the personal liking of a pupil for his teacher (the second most influential agent in the child's life) is one of the most powerful factors in bringing about an effective learning relationship between the teacher and the pupil.

Methodologically, many recent studies dealing with mother-child and teacher-child relationships and their effects on school achievement in both socially enriched and socially disadvantaged populations have been primarily correlational, which, of course, implies only that the variables are associated, and does not imply any causal relationship. The designs of most of the non-correlational studies, on the other hand, have used changes in children's behavior as the dependent measure. These methodological approaches point to a lack of focus on changes that may occur in mothers' and teachers' attitudes as a function of a child's behavior in relation to them.

The present study will investigate the influences of what children achieve in school on the attitudes their mothers and teachers hold toward them. The effects of two indices of achievement will be investigated: (1) the usual indications of what children learn in school, e.g., the things that they make in class and bring home, and (2) a more material achievement indicating the potential economic value of going to school and doing well, e.g., food reward.

In addition, this study will also investigate the effects of the material rewards children obtain in school on their academic progress, i.e., test scores.

CHAPTER II

REVIEW OF SELECTED LITERATURE

The literature to be reviewed in this section falls generally into three categories: first, a brief resume of the theoretical bases which underlie the present research; second, selected research reported in the areas of deprivation effects as they relate to child development; and, third, literature pertinent to education and the socially disadvantaged child.

Theoretical Bases

The present research stems from two complementary personality theories, those of Sears (1951) and Erikson (1950). Both theorists view the development of an individual as involving at least two persons in interaction, e.g., a mother-child, and a teacher-child relationship. Both equate development with dynamic, continuous change, focusing on the orderly process of this change. They both speak of the unfolding of developmental processes during which all new development finds its roots in previous acquisitions, and in which all new development provides further opportunities for correcting or completing developmental acquisitions previously incomplete (Maier, 1965). While Sears' theory emphasizes the positive consequences of instrumental acts in the process of development, Erikson stresses the affectional processes as the important determinant in development.

The relevance of both theories to the present study becomes clear as one finds that the two most dominant characteristics defining the socially disadvantaged child are deficiencies in his behavioral experiences, which are manifested in poor learning readiness and in continued academic failure, and in his emotional experiences, which are demonstrated by a general lack of social responsiveness, low aspiration level, and little sense of autonomy. The former is characterized by lack of positive physical consequence for instrumental behavior, i.e., failure to receive concrete reward from parents for successful achievements during early development. The latter is typified by the absence of psychologically positive consequences while indulging in social interaction, i.e., failure to receive attention and/or support from mother during early development.

An implicit assumption made in the present investigation with regard to these two theoretical approaches to personality development is that any intervention program can alter the above dyadic relationships. One type of intervention which has been empirically demonstrated as effecting changes in behavior is positive reinforcement (reward). It seems timely to pose the question, "what will be the effects of an externally provided reward on mother-child and teacher-child relationships."

Some studies in motivation and reward, as reported by Iscoe (1965), indicate that the lower the socio-economic class of which a child is a member, the less likely he will work for a distant reward. Iscoe goes on to suggest that in teaching (socially disadvantaged) children we perhaps should not impose our "middle class value" of delay of gratification. Terrell, Durkin, and Wiesley's (1959) study lends support to this suggestion. They found that lower class children learned a discrimination task quicker when candy was used as a reward, whereas middle class children did not.

Deprivation Effects

In an early study by Goldfarb (1945) on the effects of psychological deprivation in infancy on subsequent responsiveness to stimulation, it was found that institution-raised children were inferior to children raised in foster homes with regard to (1) language and general intellect, (2) degree of contact or relatedness to the external world of experience, (3) strengths to reorganize and meet the external world of experience, and (4) the richness and maturational level of personality as expressed in imagination and conceptual competence. Similar findings concerning the socially disadvantaged child are cited by Riessman (1962), Ausubel (1963), and Havighurst (1964).

Rheingold and Bayley (1959) attempted to assess the effects of tactile stimulation--a modification of mothering--on developmental progress and subsequent social responsiveness. On the first testing after a short time, only the latter measure was significantly evident in the experimental group which was given the tactile stimulation. After one year no significant differences were found in either measure, but the experimental group was more vocal during the testing. The authors suggested perhaps verbal behavior of young children is more sensitive to changes in the environment than are other classes of behavior. The negative findings in this study have two explanations: (1) it is possible that the experiment was contaminated by experimenter bias since the manipulation and scoring of dependent measure was done by the same person, and (2) a sample of sixteen subjects may not have been large enough for the authors' instruments to detect differences.

Casler (1965) administered controlled amounts of extratactile stimulation to children in an orphanage with above average facilities. His study has yielded some support for the stimulus deprivation hypothesis. However, the fact that another human being interacted with each of the above experimental groups (Casler used a woman experimenter to administer the extratactile stimulation) lends support to the effects of positive human interaction.

Cross national support for the effects of maternal separation on school achievement is cited by Dits and Cambier (1966). They found significant differences in educational attainment between two groups of twenty children, ages 7 - 11. One group of children, whose mothers were employed outside the home, was the experimental group; the other group, whose mothers remained in the home, was the control group. The authors suggested the experimental group was more insecure and showed feelings of isolation; moreover, though giving the appearance of being more independent, they were actually more egocentric and relatively infantile.

Horowitz (1940) studied adult relationships with children of preschool age with the goal of discovering guide lines for clarification of teachers' roles in their relationship with children. His evidence pointed to the following generalization: on one side children develop a sphere of independence, they do things themselves; on the other, they develop a sphere of affectional support and attention fixing, they have an increasing need for personal relationships to adults.

Parent Attitudes and Child Development

In a longitudinal study of middle-class children done by Sontag, Baker, and Nelson (1965), increases and decreases in IQ were correlated with fourteen scales of the Fels instrument. Data were available on 140 subjects whose ages ranged from birth to ten years. The only variable that discriminated groups during preschool age was Independence. Ascenders in IQ were more independent.

Indices of children's mental health can be assessed by parent attitude and personality instruments. Medinnus (1961) used both the Parent Attitude Research Instrument (PARI) and the Fels Parent Behavior Rating Scales to assess children's early school adjustment. Mothers of well-adjusted children were rated high in Dependency encouragement and Solicitousness on the Fels scales. The authors interpreted the findings to mean that higher Dependency-encouraging scores reflect acceptance of the child while the obverse may reflect parental rejection. Parental rejection seems to involve a pervasive form of punishment of the child's attempts to gain emotional support (Bandura and Walters, 1959). Clinical evidence that mothers' pathogenic attitudes are significantly related to the nature of the parent-child relationship as reported from case histories is demonstrated by Tamkin (1964). Relationships characterized as Perfectionistic, Punitive, and Neglectful related significantly to mothers' expressed attitudes and their children's emotional disturbance.

Education and the Socially Disadvantaged

Goff (1954) used an interview technique with 120 children, from both upper and lower income groups, ages six to eight years old, and twelve to fourteen years old. His findings showed that for the lower income groups (socially disadvantaged), psychological omissions in early childhood training and guidance--usually handled by the mother--were associated with both lower aspiration level and lower self-confidence. He strongly suggested that an effort should be made to offset negative attitude patterns established at the early stages, since they act as barriers to achievement.

Milner (1951) found two main experiences in which socially disadvantaged children are deficient compared to middle-class children: (1) a warm positive family atmosphere or adult relationship pattern, and (2) an extensive opportunity to interact verbally with adults who are of high personal value to the child, and who have adequate speech patterns. Her suggestion for a curriculum to prepare these children for reading readiness in the first grade is first to begin the child at three and one-half years in a classroom with a "child-centered" teacher. During the second year the child would begin an "accouterment enrichment" program. The inclusion of as many verbal-reading experiences as possible is essential during the entire preschool program.

Milner's (1951) concern for having "child-centered" teachers in her proposed preschool program has foreshadowed much of the current consensus. In a recent critique of thinking and research on educational programs for the socially disadvantaged learner, Bloom, Davis, and Hess (1965) wrote:

> Research on attitudes of teachers toward disadvantaged children generally shows more negative evaluations of these children than of middle class children. Since difficulties are often encountered in teaching deprived children, many teachers attempt to transfer from "difficult" schools and often blame parents and children for classroom difficulties. The attribution of blame and _lack of rewards_ received by these children in school, in addition to the many other handicaps these children have, further interferes with successful learning and teaching.

The schools in this country are managed mostly by middle-class teachers and administrators; consequently, the values, ideas, objectives, and styles of classroom behavior are directed toward middle-class goals. The socially disadvantaged child is highly threatened by this experience. Recent evaluations of the Southwestern Head Start programs, conducted by Pierce-Jones (1966), have shown that, to a large extent, changes in abilities, knowledge, and attitudes of disadvantaged children were markedly dependent on differences among teachers' ways of working with them. Moreover, the teachers' styles of teaching were influenced by their own backgrounds, experience, and ethnic identity. Mexican-American and Negro teachers were more accepting of the children and were more optimistic over the program's benefits than were their Anglo-American counterparts.

SUMMARY

Many investigators have generated descriptive characteristics of the socially disadvantaged individual--some through empirical efforts and others through conjecture. Methodologically, most of the research represented in the areas of the socially disadvantaged child, mother-child, and teacher-pupil relationships has been correlational. There is a growing need for more systematic treatment of the variables operating in these areas.

Even though we may effect positive changes in children's readiness for formal school, the literature implies the necessity of also effecting positive attitudinal changes in mothers and teachers toward the children themselves. Mothers and teachers who continue to attend only to the problems children "cause", rather than to the strengths (both actual and potential) they "exhibit" as they develop, will be unable to enhance or reinforce the gains made by any preschool program. One way to effect a shift from a "problem-oriented" to a "growth-oriented" attitude in the adults who interact with socially disadvantaged children, may be to make it possible for these children to earn concrete rewards as indices of their academic achievement.

If there is validity to the theoretical notion that personality develops essentially through the interaction of at least two persons, then the reciprocal effects of each on the other should be investigated.

CHAPTER III

THE PROBLEM

Present school practices generally do not succeed in overcoming the initial differences between socially disadvantaged and socially advantaged children. Instead, what starts as small differences in intelligence and achievement in the first grade becomes larger each year. It is this cumulative deficit which must be reversed as early as possible. While compensatory programs have met with some success, much of the literature suggests that both mothers' and teachers' attitudes toward children must also change in positive directions (from "problem-oriented" to "growth-oriented"), if continued school achievement is expected from children.

The primary purpose of this study is to test the hypothesis that socially disadvantaged children can effect positive attitude change in both their mothers and their teachers when they receive a material reward while in school. A second purpose of this study is to test the hypothesis that rewards can affect the academic achievement of socially disadvantaged children. An additional purpose of this study is to demonstrate that instruments which are easily administered and inexpensively scored can be used to identify a child whose preschool experience has been psychosocially barren.

Specific Hypotheses

The general proposition this research will attempt to test is that concrete rewards, which are received by a socially disadvantaged child, will have an effect on evaluations of his behavior by the most prominent adult agents in his life--his mother and his teacher.

While reference will be made, in the following hypotheses, to children who receive no reward in school, it is understood that the school experience itself may be rewarding. The distinction drawn is between children receiving material rewards (food and toys) and those not receiving these rewards.

Hypothesis I. Mothers whose children are rewarded with food and toys for their school achievements will rate their behavior significantly more socially positive than mothers whose children are not rewarded, as measured by mean change scores on the Behavior Inventory (Parent).

This hypothesis was based on the assumption that, in general, tangible rewards are more relevant as indices of achievement for the socially disadvantaged population (Iscoe, 1965). Consequently, when a child brings food and play things home which he himself has earned, he becomes a contributor, though in a small way, to the family income, or is perceived as having "made good in society", gains a measure of higher status, and is therefore more respected.

Hypothesis II. Children who receive a food and toy reward from their teacher will be rated significantly better socially adjusted by their teacher than children who receive no reward, as measured by mean change scores on the Behavior Inventory (Teacher).

This prediction was made for two reasons: first, some empirical support has accumulated in support of the notion, derived from Festinger's (1957) theory of cognitive dissonance, that people who receive favors (or rewards) will be liked more by the donors than people to whom favors are not given; second, it seems reasonable to assume that the children who are rewarded would be more motivated to comply with and fulfill the expectations of the teacher than children who are not rewarded.

Hypothesis III. The greater the discrepancy between how well a mother initially estimates her child can perform a set of tasks and how well the child actually performs on those tasks, the more socially disadvantaged the child will be, as measured by both the teacher's rating on the pretest of the Behavior Inventory and the child's score on the Peabody Picture Vocabulary Test (PPVT).

This prediction was made because it seemed reasonable to infer that mothers who interact closely with their children, that is, pay attention to and are concerned with their development, would be more aware of how well their children could or could not perform when tested on a set of tasks. Furthermore, if these children received attention and physical and emotional support during their early development through interaction with their mothers, they should be more socialized and better able to cope with the new school experience.

Hypothesis IV. Children who are rewarded with food and toys will score significantly higher on school achievement tests than children who are not rewarded, as measured by mean change scores on the Child Preschool Inventory.

This hypothesis was based on the previous findings by Terrell, Durkin, and Wiesley (1959) that socially disadvantaged children perform better in a learning situation when given a material reward. The assumption made in this study is that the effects of material rewards will be generalized to the global learning situation (the total school experience) rather than be consequences of a specific learning task.

Hypothesis V. Mother-child dyads who are rewarded will have significantly lower mean change discrepancy scores than mother-child dyads who are not rewarded, as measured by the Parent and Child Preschool Inventories.

This prediction was based on the assumption that rewards, which were brought home by the children, would evoke more interest and attention from the parents toward what the child did in his daily activity. Even though the child may change in his performance (Hypothesis IV), the mothers' enlivened interest would result in their awareness of the changes which occurred.

Hypothesis VI. Mother-child dyads, whose initial discrepancy score on a set of tasks is high, and who are rewarded, will have a significantly lower mean change discrepancy score than mother-child dyads whose initial discrepancy score is high and who are not rewarded, as measured by the Parent and Child Preschool Inventories.

This hypothesis was proposed as a critical test of the reward effect. Within the low discrepancy groups, the probability is greater that absolute discrepancy scores would increase rather than decrease or remain the same from pretest to posttest. This would be due to a basement effect causing chance variation to occur generally in an increasing direction.

Hypothesis VII. There will be no significant difference between teachers' and mothers' ratings of children's behavior at either the pretest or posttest, as measured by the Teacher and Parent Behavior Inventories.

The null hypothesis was proposed here as an exploratory hypothesis to see if (1) teachers and mothers differ in their attitudes toward children at the beginning of the school experience, and (2) material reward had any differential effect on teachers' versus mothers' attitudes. This prediction was based on the assumption that even though teachers may rate children who are in the high discrepancy group lower than children in the low discrepancy group (Hypothesis III), there is no logical basis for assuming that their ratings would differ from the mothers' ratings in any particular direction. It is quite conceivable that mothers whose estimates of their children's performance are highly discrepant from their children's actual performance would tend to make overestimates, rather than underestimates, since they would be more likely to give socially desirable responses.

Hypothesis VIII. Mothers whose children are rewarded will overestimate their children's performance in relation to the performance of children in general on a set of tasks significantly more than parents whose children are not rewarded, as measured by the Parent and Other Child Preschool Inventories.

This prediction was made because it was assumed that while mothers, on the average, would overestimate their children's performance scores relative to the performance scores of children in general, those whose children were not rewarded would change very little in their estimates. Those mothers whose children were rewarded would be likely to view their children as brighter than children in general, and estimates for their own children would increase.

CHAPTER IV

METHOD

Selection of Subjects and Interviewers

Subjects

Ninety preschool children from three schools in the Austin Head Start Program were selected for this study. The total sample included forty-seven males and forty-three females. One teacher in each school conducted a morning and afternoon session with fifteen children per class. The children's ages ranged from five years three months to seven years three months although none had had any previous school experience.

The total ethnic breakdown of the sample included 52 Mexican-Americans, 26 Negroes, and 12 Anglo-Americans. One of the schools chosen for inclusion in the sample had an ethnic breakdown of 9 Anglo-Americans, 11 Negroes, and 10 Mexican-Americans, which were assigned to each of the two sessions in approximately the same proportions. Another school was selected because its ethnic breakdown was one

Anglo-American, 15 Negroes, and 14 Mexican-Americans, and proportions were maintained in its two sessions as well. The third school was populated predominantly by Mexican-Americans, with only two Anglo-Americans, and no Negroes enrolled. Selection of the sample was made at the beginning of the Austin Head Start Program during its registration period in January, 1967. Because the sample was too small, data on the Anglo-American children and their mothers were not collected, leaving a total of 78 mother-child dyads from whom data were collected. Of these nine mother-child dyads were dropped from the study either because they had moved from the area before the study was completed, or because the mothers could not be contacted for the post interview. The final sample included 69 mother-child dyads, thirty-seven males and thirty-two females. All three teachers were Anglo-American.

Interviewers

Nine interviewers (two females and seven males), all of whom were skilled in both test administration and interview techniques, and six of whom were bilingual in Spanish and English, conducted the interviews with the mother of each child before and after the experimental treatment. The Mexican-American mothers were interviewed only by six bilingual interviewers, and colloquial Spanish was used when necessary or desired. The nonbilingual interviewers interviewed the Negro mothers.

Each interviewer also tested the children during the pretest and posttest. Again, only the bilingual interviewers tested Mexican-American children, while the nonbilingual interviewers tested only the Negro children.

Three of the bilingual interviewers were Mexican-Americans born in Texas and one was from Chili. Of the remaining two who were Anglo-Americans, one was born and reared near the Texas-Mexican border, the other was a Spanish instructor from New York. The three nonbilingual interviewers were Anglo-Americans, two from the north midwest and one from California.

Description of Instruments

Peabody Picture Vocabulary Test (PPVT)

This test is available in two forms. It is designed to provide an estimate of a child's verbal intelligence. A book with four pictures is held before the child and he is asked by the examiner to identify one of the pictures, e.g., "show me the car", and a more difficult item, "show me climbing." The child need only point to the correct picture to receive credit. The bilingual examiners were provided with a standard translation of the items in colloquial Spanish. Correct responses were scored as such even though a response was in Spanish and the question in English, or vice versa.

Verbal intelligence is inferred from the obtained score which actually measures the child's comprehension. This test has the advantage over most other achievement tests for this population because (1) it does not require the child to speak, (2) it is easily administered and score, and (3) it takes little time to administer and holds the child's interest well; consequently, it is a quick rapport builder between examiner and child. One disadvantage is that adequate norms are not yet available for this population; therefore, raw scores rather than IQ must be used in analyses

Preschool Inventory-Child (PSIC)

Caldwell's Preschool Inventory was designed to assess the amount of information a child acquired before entering school. Essentially, it measures a child's attainment in: (1) basic information and vocabulary; (2) number concepts and ordination; (3) concepts of size, shape, motion, and color; (4) concepts of time, object class, and social function; (5) visual-motor performance; (6) ability to follow instructions; and (7) independence and self-help.

Sixty-eight items of the 85-item instrument were selected (see Appendix A), from which two 34-item forms (A and B) were constructed. An attempt was made to represent equally the seven sections (above) in the original instrument in that the forms contained an equal number of items from each section, and the pairs of items selected were logically matched in kind, for example:

		R	W
Form A Item 16.	"Say hello very softly."	___	___
Form B Item 15.	"Say hello very loudly."	___	___

A perfect score on each form yields 36 points (two items in each form yield a possible two points). All items were translated into colloquial Spanish for use with the Mexican-American subjects. Forms A and B, Spanish version, are reproduced in Appendix B.

Preschool Inventory-Parent (PSIP)

This is the same instrument as the PSIC. The statement preceding each item asked was generally as follows: "If I asked Johnny how many noses he has, what would he say?" or "If I asked Johnny what do you call this (the interviewer pointed to his elbow), would he know the name for it?" This instrument was designed to obtain a measure of how much the mother actually knew about what her child could do; therefore, the score obtained from the parent became the child's *attributed* score. The score achieved by the child himself (PSIC) was his *actual* score. This instrument may be found in Appendix B.

To obtain an index of how much the mothers were aware of what children in general know, i.e., children the same age as their own child, the *Preschool Inventory-Other Children (PSIO)* was constructed. The items in this instrument were the same as those in Form A of the PSIP. The statement preceding each item asked was generally as follows, "If I asked *most children the same age as* Johnny . . .", etc. This instrument may be found in Appendix C.

Head Start Behavior Inventory (BI)

This instrument was originally designed for use with Head Start teachers to assess behavior of children on several social and personality dimensions. Since factorial and/or other validation of these dimensions has as yet not been reported, the instrument was given to three judges to rate its 50 items on five dimensions decided on an a priori basis. The dimensions were: (1) Independence-Dependence, (2) High-Low Emotionality, (3) Positive-Negative Sociability, (4) High-Low Perseverance, and (5) High-Low Curiousity. Criterion of item selection was 100 per cent agreement among all three raters. Twenty-four of the fifty items met this criterion, and these were divided into two comparable 12-item forms (A and B) which were used to measure changes in mothers' attitudes toward their children. Comparability was attempted by having an equal number of polar items from each dimension represented on both forms.

Certain modifications of the items in the two forms were made to adapt it for use with the mothers of the children, since the wording of the original items assumed greater verbal facility than could be expected of this population. First, all items were translated into colloquial

Spanish. These translations appeared below each item. Secondly, where needed, examples were provided in both English and Spanish below each item. Thirdly, an unnumbered four-point scale was provided below each item with response choices also appearing in both Spanish and English. Finally, response choice locations varied sequentially across the scale to minimize probability of response set by the mother and/or the interviewer, as he marked the scale for the mother on the basis of her response. Forms A and B of the Behavior Inventory-Parents (BIP) may be found in Appendix D.

The Behavior Inventory-Teacher (BIT) included the original 50 items of the Behavior Inventory; however, no examples were provided nor was Spanish translation necessary, and each item was followed by a scale with rotated response choice locations as described above. Form B of this instrument is exactly the same as Form A. This instrument was used to assess changes in teachers' attitudes toward their pupils. Form A of the BIT may be found in Appendix E.

Description of Procedure

Preliminary individual interviews with the mothers were conducted between five and ten days before the children entered the program. During this interview, Form A of the BIP was given, followed by Form A of the PSIP. Some further aspects of the program were explained to the mother, and a return appointment day and time were recorded on one of the pre-interview forms. See Appendix F for the complete text of the introduction and procedure during the initial contact (in both Spanish and English).

Within the first three days of the school program, each child was individually tested with Form B of the PPVT and Form A of the PSIC. In addition, the three teachers were informed about the reward aspects of the study and their cooperation was generously given. Form A of the BIT was completed by each teacher after the thirteenth school day. This period of time was chosen to allow the teachers to become well enough acquainted with their students to rate their behaviors.

For five weeks on various days, two days a week, beginning with the fourth school day of the semester, one entire class of 15 children in each of the schools received two rewards from their teacher as they left for home. One reward was a ten cent plastic toy appropriate for the age level of the children. The other reward was a bag containing three pieces of different kinds of fruit, e.g., avocado, apple, orange. The bag was firmly stapled with a folded note affixed which read "Johnny has earned this for doing good work in school today." All children in the rewarded classes received the same amount of reward regardless of their performance in school; however, the teachers were instructed to display the toys and allow first choices to be made by the children who "did well that day." In this way, though no one was left out, some peer status and/or sense of achievement could be felt by having "won" first choice, or near first choice.

Children in the nonrewarded classes received neither toys nor bags of fruit, and brought home those items usually made in school by children this age, e.g., valentines, cut-outs, etc. Since one of the morning classes was a rewarded class, extreme care was taken to ensure that children enrolled in the afternoon class at that school did not see the children from the morning class leave with things the nonrewarded class never received. The afternoon classes were rewarded in the other two schools so problems in this regard were quite improbable.

During the fifth and sixth week of the school program, the mothers were asked by letter to come to the school for a conference about their child, at the time and on the day they previously stated would be convenient. A sample of this letter may be found in Appendix G. Some mothers failed to meet their appointments, so the interviewers had to make home visits to conduct the post interview.

The order of administering the instruments was changed in the post interview. Form B of the PSIP was given first, Form B of the BIP was given second, then the PSIO was administered. The order was changed to minimize conscious attempts of comparison by the mother of her child (PSIP) with children in general (PSIO). Even though the items of the two instruments were, for the most part, different, this writer assumed that less transfer would occur if different types of items (BIP) intervened between the two instruments.

In addition, before the closing remarks of the interview were made, a question was asked of the mother as a check on the manipulation, e.g., "Did Johnny bring anything home from school?" If no mention of fruit or toys was made during responses to the first question, the interview was terminated with the remarks printed at the bottom of the questionnaire. However, if the mother mentioned toys and not fruit, further probing was done by the interviewer until either she did not respond any more or until she mentioned the fruit. If the latter occurred, the next two questions were asked. This questionnaire may be found in Appendix H.

As each parent interview was completed the child of the mother interviewed was tested within the following two days with Form A of the PPVT and Form B of the PSIC. During the seventh and eighth week, the teachers again completed the BIT for each child. A schematic of the above procedure is shown in Table I (see p. 41).

General Design

The independent variables in this study are rewards given to children during the first five weeks of their Head Start school experience and initial discrepancy scores between mother and child. The dependent variables are changes which occur in mothers' attitudes, teachers' attitudes, and in children's own academic achievement.

The experimental and control groups were formed on the basis of a median split of the mother-child pretest discrepancy scores, as measured by the PSIP - PSIC. The high discrepancy (HD) and low discrepancy (LD) dyads were further divided into reward and no reward groups. A model of the

Table 1

Schematic of Procedural Design

Program Registration	First Week*	Third Week	Fifth Week Sixth Week	Seventh Week Eighth Week
Mothers Interviewed	Children Tested	Teachers Ratings	Mothers Interviewed	Teachers Ratings
(1) BIP-Form A (2) PSIP-Form A	(1) PPVT-Form B (2) PSIC-Form A	(1) BIT-Form A	(1) PSIP-Form B (2) BIP-Form B (3) PSIO-Form A (4) Questionnaire	(1) BIT-Form B
			Children Tested	
			(1) PPVT-Form A (2) PSIC-Form B	

Food and Toy Reward Given

Two different days each week
For five weeks
To one half of the sample

*Children were tested during the first three days of the first week and rewards were given by the teacher on the fourth and fifth days.

general design with sample sizes within each cell is provided in Figure 1.

	High Discrepancy (HD)	Low Discrepancy (LD)
Reward (R)	N = 21	N = 12
No Reward (NR)	N = 13	N = 23

Figure 1.

Factorial Design With Two Levels of Reward
And Two Levels of Discrepancy Groups

Procedure of Data Analysis

Single classification analyses of variance were used in the statistical analyses that follow. For all hypotheses except Hypothesis III the data were analyzed in two ways. First, the dependent measures were considered as absolute scores, that is, the absolute magnitude of a difference score (disregarding sign) was used to compute cell means. Secondly, the dependent measures were considered as directional scores, that is, the direction of change between difference scores (retaining sign) was used to compute cell means. The latter consideration renders a more descriptive measure of what is occurring between a (the) set(s) of dyads in this study.

Inspection of the examples provided in Table 2 (see p. 44) reveals that absolute magnitude of difference score does not indicate whether a discrepancy between a mother and child decreased or increased. By retaining the sign, cell means then indicate an overall increase or decrease occurring between dyads from pretest to posttest. It should be noted, from inspection of example III under directional analysis, that information regarding net change of mothers' scores relative to the change scores of their children cannot be gleaned from either of the above procedures. Further analyses, using the procedure evident in example IV, are reported in Chapter VI.

Specific Predictions Based on Hypotheses

(1) Mothers will rate their children's behavior significantly more socially positive as a function of the rewards their children receive. R will be greater than NR, where mean change score from pretest to posttest on the BIP is the dependent measure.

Table 2

Examples of Procedures Used for Computation of
Absolute and Directional Dependent Measure Scores

	Absolute Analysis			Directional Analysis		
	Pretest Mother-Child	Posttest Mother-Child	Post-Pretest Difference	Pretest Mother-Child	Posttest Mother-Child	Post-Pretest Difference
Example I	20 - 25	25 - 28		20 - 25	25 - 28	
Score:	5	3	2	5	3	-2
Example II	25 - 20	28 - 36		25 - 20	28 - 36	
Score:	5	8	3	5	8	+3
Example III	15 - 20	30 - 27		20 - 15	25 - 30	
Score:	5	3	2	±5	±5	0
Example IV	15 - 16	20 - 19		15 - 20	25 - 20	
Score:	1	1	0	-5	+5	10

(2) Teachers will rate children whom they rewarded significantly better socially adjusted than children whom they did not reward. R will be greater than NR, where mean change score from pretest to posttest on the BIT is the dependent measure.

(3) The higher the discrepancy score received for a mother-child dyad, the more socially disadvantaged the child will be. HD will be less than LD, where the mean social adjustment rating on the pretest of the BIT and the children's mean PPVT pretest score are the dependent measures.

(4) Children who are rewarded will score significantly higher on an achievement test than children who are not rewarded. R will be greater than NR, where mean change score from pretest to posttest on the PSIC is the dependent measure.

(5) Mother-child dyads who are rewarded will have significantly lower discrepancy scores than mother-child dyads who are not rewarded. R will be lower than NR, where change in discrepancy score on the PSIP-PSIC from pretest to posttest is the dependent measure.

(6) Highly discrepant mother-child dyads who are rewarded will have significantly lower discrepancy scores than highly discrepant mother-child dyads who are not rewarded.

R-HD will be less than NR-HD, where change in discrepancy score on the PSIP-PSIC from pretest to posttest is the dependent measure.

(7) Mothers and teachers will not differ in their ratings of children's behavior for the high versus low discrepant groups. HD is equal to LD, where mean mother-teacher discrepancy scores at both pretest and posttest are the dependent measures.

(8) Mothers whose children are rewarded will overestimate their children's performance relative to the performance of children in general significantly more than mothers whose children are not rewarded. R is greater than NR, where mean PSIP-PSIO posttest score is the dependent measure.

CHAPTER V

RESULTS

The results concerning the hypotheses are reported below. Each hypothesis is considered separately.

Hypothesis I. Mothers whose children are rewarded with food and toys for their school achievements will rate their behavior significantly more socially positive than mothers whose children are not rewarded, as measured by mean change scores on the Parent Behavior Inventory.

The results of the test of the first hypothesis indicate that mothers whose children were rewarded did not differ significantly from mothers whose children were not rewarded, in terms of rating their children's behavior more socially positive. No significant difference was found either in absolute magnitude or in direction of change.

The results of the analyses of variance computed to test Hypothesis I are presented in Table 3 below.

Table 3

Absolute and Directional Mean Change Scores on the Parent Behavior Inventory for the Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	3.61	.015	.899
No Reward	36	3.71		
Directional				
Reward	33	.22	.343	.567
No Reward	36	- .48		

*Within Rounding Errors.

Hypothesis II. Children who receive a food and toy reward from their teacher will be rated significantly better socially adjusted by their teacher than children who receive no reward, as measured by mean change scores on the Teacher Behavior Inventory.

The results of the test of the second hypothesis indicate that ratings of social adjustment given by teachers to rewarded children, though more positive, did not differ significantly from ratings given by teachers to nonrewarded children, when absolute mean change ratings were used as the criterion measure. However, when the direction of change is accounted for in computation of cell means, the results indicate that teachers who rewarded children rated them significantly better socially adjusted than children whom they did not reward.

Table 4 presents the results of the analyses of variance computed to test Hypothesis II.

Table 4

Absolute and Directional Mean Change Scores
on the Teacher Behavior Inventory for the
Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	19.17	1.876	.172
No Reward	36	15.11		
Directional				
Reward	33	13.93	4.705	.032
No Reward	36	3.82		

*Within Rounding Errors.

The above mean change scores were derived from the total 50-item Teacher Behavior Inventory. Additional analyses

60

were done on the mean change scores of the items which corresponded to the 12 items used in the Parent Behavior Inventory.

No significant difference was found between group mean change scores in terms of social adjustment ratings made by teachers, when absolute magnitude of change was considered on the attenuated BIT. When the direction of change was considered, teachers rated children whom they rewarded significantly better socially adjusted than children whom they did not reward.

Table 5 presents the results of the additional analyses on the attenuated BIT.

Table 5

Absolute and Directional Mean Change Scores on the Attenuated Teacher Behavior Inventory for the Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	4.70	.887	.648
No Reward	36	4.02		
Directional				
Reward	33	2.63	8.621	.005
No Reward	36	- .97		

*Within Rounding Errors.

Hypothesis III. The greater the discrepancy between how well a mother estimates that her child can perform a set of tasks and how well the child actually performs on those tasks, the more socially disadvantaged the child will be, as measured by the teacher's rating on the pretest of the Behavior Inventory and by the child's score on the Peabody Picture Vocabulary Test (PPVT).

The test of the third hypothesis required two separate comparisons: (1) the comparison of the mean pretest teachers' BIT ratings of children who were in the high discrepancy versus the low discrepancy groups, and (2) the comparison of the mean pretest PPVT scores achieved by children who were in the high discrepancy versus the low discrepancy groups.

No significant difference was found between the group means of the teachers' BIT ratings. Children in the low discrepancy group, however, scored significantly higher on the PPVT than children in the high discrepancy group.

The results of the analyses of variance computed to test Hypothesis III are presented below in Table 6.

Table 6

Mean Pretest BIT Scores and PPVT Scores for High and Low Discrepancy Groups

Groups	N	Means*	F-ratio	p*
BIT (Pretest)				
High Discrepancy	34	138.34	.766	.611
Low Discrepancy	35	143.57		

Table 6-Continued

Groups	N	Means*	F-ratio	p*
PPVT (Pretest)				
High Discrepancy	34	34.82	4.547	.035
Low Discrepancy	35	40.51		

*Within Rounding Errors.

Hypothesis IV. Children who are rewarded with food and toys will score significantly higher on school achievement tests than children who are not rewarded, as measured by mean change scores on the Preschool Inventory.

The results of the test of the fourth hypothesis required a comparison of mean change PSIC scores for the rewarded versus the nonrewarded groups.

No significant difference was found between the above group mean scores when either absolute magnitude or direction of change was considered.

Table 7 presents the results of the analyses of variance computed to test Hypothesis IV.

Table 7

Absolute and Directional Mean Change Scores on the Child Preschool Inventory for Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	4.64	.462	.506
No Reward	36	4.06		

Table 7-Continued

Groups	N	Means*	F-ratio	p*
Directional				
Reward	33	- .25	.386	.544
No Reward	36	-1.11		

*Within Rounding Errors.

Hypothesis V. Mother-child dyads who are rewarded will have significantly lower mean change discrepancy scores than mother-child dyads who are not rewarded, as measured by the Preschool Inventory.

The results of the test of the fifth hypothesis indicate that on the basis of mean change in discrepancy scores, the mother-child dyads in the rewarded group did not differ significantly from mother-child dyads in the nonrewarded group, when either absolute magnitude or directional change was considered.

Table 8 represents the results of the analyses of variance computed to test Hypothesis V.

Table 8

Absolute and Directional Mean Change Discrepancy Scores Between Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	3.34	.667	.578
No Reward	36	3.99		

Table 8-Continued

Groups	N	Means*	F-ratio	p*
Directional				
Reward	33	.52	.913	.655
No Reward	36	1.61		

*Within Rounding Errors.

Hypothesis VI. Mother-child dyads, whose initial discrepancy score on a set of tasks is high, and who are rewarded, will have a significantly lower subsequent discrepancy score than mother-child dyads whose initial discrepancy score is high and who are not rewarded, as measured by the Preschool Inventory.

On the basis of mean change in discrepancy scores, the mother-child dyads in the high discrepancy rewarded group did not differ significantly from the mother-child dyads in the high discrepancy nonrewarded group, when either absolute magnitude or direction of change was considered.

The results of the analyses of variance computed to test Hypothesis VI are presented in Table 9 below.

Table 9

Absolute and Directional Mean Change Discrepancy Scores Between High Discrepant Mother-Child Dyads in the Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	21	4.10	1.242	.279
No Reward	13	3.77		

Table 9-Continued

Groups	N	Means*	F-ratio	p*
Directional				
Reward	21	- .86	1.994	.425
No Reward	13	- .38		

*Within Rounding Errors.

Hypothesis VII. There will be no significant difference between teachers' ratings and mothers' ratings of children's behavior, as measured by the Teacher and Parent Behavior Inventories.

The results of the test of the seventh hypothesis indicate that on the basis of both the pretest and the posttest absolute and directional mean ratings (BIP-BIT), no significant difference was found in mothers' and teachers' ratings of children for the high versus low mother-child discrepancy groups. Therefore, the null hypothesis cannot be rejected.

Table 10 presents the results of the analyses of variance computed to test Hypothesis VII.

Table 10

Absolute and Directional Mean Pretest and Posttest Mothers' and Teachers' Ratings for the High and Low Mother-Child Discrepancy Groups

Groups	N	Means*	F-ratio	p*
Absolute (Pretest)				
High Discrepancy	34	4.62	2.637	.105
Low Discrepancy	35	6.23		

Table 10-Continued

Groups	N	Means*	F-ratio	p*
Directional (Pretest)				
High Discrepancy	34	- .91	.480	.502
Low Discrepancy	35	-2.03		
Absolute (Posttest)				
High Discrepancy	34	4.64	1.075	.304
Low Discrepancy	35	5.77		
Directional (Posttest)				
High Discrepancy	34	-1.86	1.339	.250
Low Discrepancy	35	-3.64		

*Within Rounding Errors.

Additional analyses were done to determine the absolute magnitude and direction of the mean scores of mothers' and teachers' ratings of children's behavior as a function of the rewarded versus nonrewarded experience.

The results presented in Table 11 below indicate that teachers' behavior ratings of the children who were rewarded were sufficiently more positive than the mothers' ratings of those children to cause a significant difference between the rewarded and nonrewarded groups, when direction of difference was considered.

Table 11

Absolute and Directional Mean Posttest Mothers' and Teachers' Ratings for the Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute (Posttest)				
Reward	33	5.29	.021	.879
No Reward	36	5.13		
Directional (Posttest)				
Reward	33	-5.06	8.157	.006
No Reward	36	- .55		
High Discrepancy				
Reward	21	-4.62	8.087	.010
No Reward	13	.69		
Low Discrepancy				
Reward	12	-5.50	2.639	.300
No Reward	23	-1.78		

*Within Rounding Errors.

Hypothesis VIII. Mothers whose children are rewarded will overestimate their children's performance in relation to the performance of children in general on a set of tasks significantly more than mothers whose children are not rewarded, as measured by the Preschool Inventory.

The results of the test of the eighth hypothesis indicate that mothers whose children are rewarded do not differ significantly, in terms of estimating their own children's performance relative to the performance of children in general on a set of tasks, from mothers whose children are not rewarded, in either absolute magnitude or direction of estimation.

Table 12

Absolute and Directional Mean Performance Estimates of Mothers' Own Children Versus Children in General for Rewarded and Nonrewarded Groups

Groups	N	Means*	F-ratio	p*
Absolute				
Reward	33	3.42	.039	.839
No Reward	36	3.55		
Directional				
Reward	33	-2.00	1.185	.280
No Reward	36	- .84		

*Within Rounding Errors.

CHAPTER VI

DISCUSSION AND FURTHER ANALYSES

The first hypothesis was based on the assumption that tangible rewards which are brought home from school by socially disadvantaged children would effect more positive perception on the part of mothers toward their children's behavior. This assumption was not supported. No significant difference was found when mothers' ratings of rewarded children were compared with mothers' ratings of nonrewarded children.

It was expected that food would be a more relevant index of achievement than grades, "good" reports, or items made by children as part of class projects. This expectation was held since the subjects in this study were drawn from the low socio-economic level (Head Start population); consequently, the food reward would function as a reinforcer in augmenting the positive attitudes of the mothers.

The above result seems especially surprising in view of the role tangible rewards played in the outcome of the second hypothesis. Children who were rewarded were perceived as significantly better socially adjusted by their teachers than children who were not rewarded (cf. Table 5, p.50). Much of the social

70

psychological literature supports the notion that people from middle socio-economic levels value intangible rewards, e.g., grades and status, over concrete rewards as indices of academic achievement. Also, a delay of gratification, as an integral part of the educative process, is generally valued over immediate gratification by the middle classes.

The finding in this study, that middle socio-economic class teachers and low socio-economic class mothers who supposedly hold values consistent with their respective social classifications, but who did not conform to expectations based on those values, suggests the necessity of further exploration into the assignment to and classification of group membership on the basis of value concepts. While Festinger's (1957) theory of cognitive dissonance may account for the teachers' differential perceptions, i.e., rating children as better socially adjusted, as a function of having given those children rewards, other explanations seem requisite for the lack of differential perceptions exhibited by the mothers. One possibility is that the mother-child relationship is too complex to be altered by any simple, short-term intervention. Another possibility is that the instrument used (BIP) was not sensitive enough to detect a true effect.

The third hypothesis was proposed in an attempt to establish a quick and inexpensive means of identifying children within a seemingly homogeneous group who may need specialized attention. For example, it may be necessary for some children to learn first how to interact with supportive adults. Once the children have learned how, a readiness for more complex socialization experiences can be established before academic and other demands are made of them, e.g., sitting still, listening to an adult give lengthy directions, waiting one's turn, etc.

The assumption made was that mothers who, through continued interaction, have given emotional, physical, and developmental support to their children, would be aware of how well their children could or could not perform on a set of tasks. Those mothers who, for any of a number of reasons, failed to allow enough adequate interaction to take place during preschool development would be less likely to be aware of how well their children could perform on a set of tasks.

Discrepancy between mothers' estimations of children's scores and the children's obtained scores on a set of tasks was found to be significantly related to scores on an achievement test (PPVT) in which verbal comprehension accounts for most of the obtained score. It seems that mothers who are aware of their children's abilities must also verbally interact with them extensively. This finding supports Bernstein's (1960) notion that basically two types of language usage are found in lower class families; a restricted type, which is characterized by short simple sentences and rigid and limited use of adverbs and adjectives; and an elaborated type, characterized by accurate grammatical order and syntax and frequent use of prepositions which indicate logical relationships as well as those which indicate temporal and spatial contiguity.

Teachers' ratings of social adjustment did not differ significantly for the high and low discrepancy groups. These results suggest that teachers, who rate children's behavior after a brief exposure to them, are not as able to differentiate those children who may need special attention as are scores on the PPVT.

The fourth hypothesis was proposed to test the effects of differential rewards on school achievement. The expectation that children who received a food and toy reward would score significantly higher on an achievement test than children who did not receive these rewards was not supported (cf. Table 7, p. 52).

The effects of material reward on achievement in the Head Start program previously have not been evaluated. Since significant increases in children's achievement scores have been found with the general Head Start population (Pierce-Jones, 1966), it appears that these rewards may have had no effect on achievement gains. On the other hand, the study by Terrell et al. (1959) and the large body of research supporting the positive effects of reward on behavior, point to the possibility that the material rewards had differential effects within the sample in this study. For example, it is conceivable that the material rewards had a negative effect on the achievement motivation of children of one particular ethnic group, and had a positive effect on the achievement motivation of the other ethnic group (Gotts, 1966). If this is the case within the reward group, then differences due to the reward would be cancelled out in the overall reward main effect analysis. Additional analyses were performed to investigate these possibilities.

Two separate analyses were performed: (1) the effects of reward and ethnicity on achievement were assessed using a 2 x 2 factorial analysis of variance design, (2) a single classification analysis of variance was used to test the effects of reward on achievement within each ethnic group. Table 13 presents the results of the additional analyses.

Table 13

Directional Mean Change Scores on the Child Preschool Inventory for Rewarded and Nonrewarded Mexican-American and Negro Groups

Groups	N	Mean*	F-ratio	p*
Treatment				
Reward (R)	33	- .25	.386	.544
No Reward (NR)	36	-1.11		
Ethnicity				
Mex.-Amer. (MA)	48	1.30	8.205	.006
Negroes (N)	21	-2.66		

Table 13-Continued

Groups	N	Mean*	F-ratio	p*
Interaction				
R-MA + NR-N	34	.59	3.379	.067
by				
NR-MA + R-N	35	-1.95		
Negroes				
Reward	10	-3.50	1.116	.305
No Reward	11	-1.82		
Mex.-Americans				
Reward	23	3.00	4.089	.046
No Reward	25	- .40		

*Within Rounding Errors.

The above results indicate that material rewards had reverse effects on mean achievement scores of Negro versus Mexican-American children. Inspection of the means reveals that while no significant difference exists within the treatment main effect, a significant difference does exist within the ethnicity main effect. Mexican-American children's mean achievement score was significantly higher at the posttest than the Negro children's mean achievement score; moreover, the means were in opposite directions. While the interaction mean differences were not statistically significant, their magnitude and direction suggest that reward had positive effects only for the Mexican-American children, while no reward had less negative effects for the Negro children. Though the difference was not significant, Negro children in both the Reward and No Reward condition obtained lower scores on their achievement posttest. Mexican-American children who were in the Reward condition increased their achievement score, while those in the No Reward condition slightly decreased their achievement score, and this difference was significant.

The fifth hypothesis concerns the effect of material reward on changes occurring in a mother, in terms of awareness of or attention given to her child. It was hypothesized that regardless of how close or distant the mother-child relationship was initially, as inferred by the discrepancy between the mother's estimated score and the child's obtained score on the pretest task list, those mother-child dyads who received material rewards would have significantly lower discrepancy scores at the posttest than those mother-child dyads who did not receive material rewards. The data do not support the hypothesis.

The mean scores used to test this hypothesis were computed using the procedure outlined in examples I, II, and III (cf. p. 44). To assess net changes of mothers' scores relative to changes in their children's scores, further analyses were performed using the procedure illustrated in example IV. The results presented in Table 14 below indicate that the mothers' mean estimates of how well their children could perform in both the Reward and No

Reward groups remained higher relative to how well the children actually performed at both the pretest and posttest. While the means were in the predicted direction, i.e., the reward group had a lower mean change discrepancy score, the difference was not significant.

Table 14

Relative Magnitude and Directional Mean Change Discrepancy Scores Between Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups

Groups	N	Mean*	F-ratio	p*
Reward	33	.52	1.293	.259
No Reward	36	2.69		

*Within Rounding Errors.

Other analyses were performed to explore whether material reward had differential effects on Negro and Mexican-American mother-child dyads. First, a single classification analysis of variance was used to test whether Mexican-American mothers' mean change score differed significantly in magnitude and direction from Negro mothers' mean change score relative to their children's mean change scores. Second, the effect of reward within each ethnic group was evaluated. Table 15 presents the results of the above analyses.

Table 15

Relative Magnitude and Directional Mean Change Discrepancy Scores Between Negro and Mexican-American Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups

Groups	N	Mean*	F-ratio	p*
Ethnicity				
Mex.-Amer. (MA)	48	.32	4.609	.033
Negroes (N)	21	4.42		
Mex.-Americans				
Reward	23	-2.04	3.943	.050
No Reward	25	2.68		
Negroes				
Reward	10	5.30	.888	.640
No Reward	11	3.55		
Ethnicity (PSIP-PSIC) Pretest				
Mex.-Amer. (MA)	48	3.11	.797	.621
Negroes (N)	21	1.95		

*Within Rounding Errors.

The above results indicate that Mexican-American mothers' estimates of how well their children could perform remained significantly closer to the actual change in the performance of their children than Negro mothers' estimates. It should be noted that no significant difference existed between Mexican-American and Negro mother-child dyads on the pretest measure.

The within-ethnic group Reward versus No Reward results present an interesting finding. Conceptually, Mexican-American mother-child relationships did not get any closer as a function of the rewarded experience, even though the discrepancy change score for the Reward group is significantly different from the discrepancy change score for the No Reward group. What did occur, however, which may account for the statistical significance between groups, was a shift in the direction of lower performance estimates made by mothers in the Reward group.

One inference drawn from this finding is that rewards may have had a negative effect on a mother's perception toward her child, i.e., her awareness of her child's abilities was focused on his weaknesses; consequently she would underestimate his performance. It is also possible that mothers in the Reward group attempted to give less socially desirable responses during the posttest interview. In conjunction with the latter possibility, a further explanation may be found in considering the cultural phenomenon called envida.

The word envida, literally translated, means envy or jealousy in Spanish; however, when used descriptively within the context of the Mexican culture, its meaning connotes a generalized negative feeling aroused in members of the community toward an individual, when he is being ostentatious with regard to any material (or academic) gains he may acquire. To acquire goods for a better life is a positive virtue within the Mexican culture. But once gains are made, a person must be cautious how he displays them, if he does so at all, since if he does, and it is perceived as being done in the least flaunting manner, he stands the chance of being ostracized by the community for being "above them." Feelings of commaraderie are more highly valued than material gains (Madsen, 1964, pp. 22-24).

While the existence of envida presents as yet an empirical question, it is conceivable that the attitudes of the mothers in the Reward group were affected by this phenomenon. For example, it may have been discovered by mothers in the No Reward group that their children were not "doing well in school" (since their children never brought home fruit), while their neighbors' children were bringing the material rewards home. Feelings of dissatisfaction or resentment may have been communicated to the mothers in the Reward group by the mothers in the No Reward group, centering on the idea that the rewarded children were getting ahead in the dominant society while their own children were not. Mothers in the Reward group may have underestimated their children's performance using a defense that might be characterized as "cultural compensation."[1]

Comparison of the pretest discrepancy means and discrepancy change score means of the Negro sample reveals that Negro mothers in both the Reward and No Reward groups increased in their estimations relative to their children's changes in performance. However, no significant difference was found between these groups in terms of change in Negro mothers' estimates of their children's performance relative to the actual change that occurred in the performance of their children.

---

[1] Within the Mexican culture, strong feelings of ethnic affiliation generally exist (Paz, 1961); however, according to an extension of this hypothesis proposed by Mr. Perfecto Garcia (1966), strength of ethnic affiliation varies for the Mexican-American. It does not necessarily depend upon proximity to the Mexican border or on socio-economic status, but rather on the identification with and acceptance of one's heritage. Mr. Garcia proposed that basically three kinds of ethnic affiliation can be found among and within Mexican-American communities: (1) the Anglo-Mexican-American, who almost fully denies his heritage, (2) the Mexican-Mexican-American, who retains close identification with the Mexican heritage but is also able to function and progress within the Anglo-American culture, and (3) the Hybrid-Mexican-American, who neither identifies with the Mexican heritage nor with the Anglo-American society. Through his East Austin community research, Mr. Garcia characterizes the Mexican-Americans as predominantly Hybrid-Mexican-Americans. They show very poor usage of both Spanish and English, they seem to demonstrate little desire for vertical social mobility, and in general they convey a great deal of confusion concerning their personal and social roles. It is extremely difficult for these people to cope adequately with the cultural conflicts that confront them, since they have little understanding of the cultures involved, even the one in which they supposedly have membership.

An inference which may be drawn from inspection of the magnitude of the Negro Reward versus No Reward group means is that reward seems to have had the effect of facilitating the mothers' overestimation of their children's performance. This point will require further investigation.

The sixth hypothesis was proposed as a critical test of Hypothesis V, namely, that material rewards would have the effect of bringing a mother and child closer together, in terms of the mother becoming more aware of how well her child was performing during his first school experience.

Since low discrepancy mother-child dyads from both the Reward and No Reward conditions were included in the test of Hypothesis V, it is possible that no significant difference was found for the Reward main effect because, due to a basement effect, the probability is greater that absolute discrepancy change scores (for the low discrepancy dyads) would increase rather than decrease. Mothers in the low discrepancy dyads were not expected to differ significantly in their awareness of their children's performance as a function of reward; therefore, the probability is greater that low discrepancy mean change scores, due to chance variation, would remain about the same, using the procedure of directional analysis outlined in examples I, II, and III (cf. p. 44).

Further analyses were performed to explore the relative magnitude and direction of change which occurred between Mexican and Negro mothers' estimates with regard to the changes which occurred in their children's performances. Within-ethnic group analyses for the high discrepancy dyads were also performed. Table 16 presents the results of the above analyses.

Table 16

Relative Magnitude and Directional Mean Change Discrepancy Scores Between Negro and Mexican-American High Discrepancy Mother-Child Dyads on the Preschool Inventory for Rewarded and Nonrewarded Groups

Groups	N	Mean*	F-ratio	p*
Ethnicity (HD)				
Mex.-Amer. (R + NR)	25	-1.56	3.667	.100
Negroes (R + NR)	9	5.22		
Mex.-Americans (HD)				
Reward	15	-3.80	2.574	.200
No Reward	10	1.80		
Negroes (HD)				
Reward	6	7.00	4.374	.100
No Reward	3	1.67		

*Within Rounding Errors.

While none of the results of the additional analyses performed for Hypothesis VI were statistically significant, the trends appear consistent with previous within-ethnic analyses. Caution is exercised in interpreting these specific results since, with the exception of the Mexican-American (HD) groups, sample size within the other group comparisons is quite small or markedly unequal.

Again, within the high discrepancy Reward versus No Reward condition, Mexican-American mothers who were rewarded underestimated their children's performance while nonrewarded mothers continued to make overestimates of their children's performances relative to the changes in actual performance which occurred.

Hypothesis VII was proposed as an exploratory hypothesis to determine whether mothers and teachers differed in their attitudes toward the children in the high and low discrepancy groups. The results obtained from the analysis performed on the pretest data indicate that mothers of both discrepancy groups rated their children's behavior as less socially positive than did the teachers, but that the difference between ratings was not significant. Posttest data also showed no significant difference between ratings of mothers and teachers, and mothers again rated children's behavior in both discrepancy groups less socially positive than did teachers (cf. p. 56).

The direction of the results above is not too surprising, as the teachers probably do not know children as well as the children's own mothers, since teachers do not sample the greater portion of children's behavior. On the other hand, the ratio of magnitudes of the directional means of the two discrepancy groups in both the pretest and posttest is approximately the same (1:2), which indicates that the mothers and teachers were able to agree more closely in their behavior ratings of children in the high discrepancy group, than in their behavior ratings of children in the low discrepancy group.

It seems likely that children in the high discrepancy group either acted out more in a disruptive way or were exceptionally withdrawn when they interacted with the teachers. These two extreme behaviors would be expected from children who had not had many positive relationships with adults during their early development. Conversely, children in the low discrepancy group were probably more able to follow directions and conform to the teachers' requests, which suggests that they had had enough positive experiences with adults to have learned appropriate ways to interact with them.

Inspection of the posttest mothers' and teachers' mean ratings (cf. p. 57) lends support to the above explanation. The nonrewarded children in the high discrepancy group received slightly more positive ratings from their mothers than they received from their teachers. In all other conditions, teachers' ratings were more positive than mothers' ratings.

While no significant difference was found within the low discrepancy group between mothers and teachers' ratings for the Reward versus No Reward group, a significant difference was found within the high discrepancy group with the mean ratings in opposite directions. A possible conclusion here is that teachers will perceive a child more positively than the only other person who supposedly knows the child best, his mother, under two conditions: first, if the child has been exposed to positive interactive experiences with adults during his preschool development; and, secondly, when the teacher has been instrumental in providing a positive experience for a child, who has not had positive experiences with adults. The positive experience provided in this case was the giving of a material gift by the teacher, and its apparent positive reception by the child.

The eighth and final hypothesis in this study was proposed to test whether mothers in the rewarded group would overestimate their own children's performance relative to estimates they made of the performance on the same set of tasks of other children in general (PSIP-PSIO). The data do not support the hypothesis.

The material reward, food and toys, used as an index of achievement in this study, appeared not to have instilled any greater sense of achievement, as held by a mother toward her own child, than the usual indices of achievement which a child brings from school, e.g., grades or projects made in school (valentines, drawings). From inspection of the means of the Reward and No Reward groups (cf. p. 58), it appears that while mothers in both groups actually underestimated their own children's performance relative to the performance of other children, mothers' underestimates in the Reward group were greater than those in the No Reward group.

Further analyses revealed a consistent tendency for mothers in this sample to underestimate their own children's performance, when ethnicity, sex, and discrepancy were considered. Since none of the differences was significant, only the means are presented in Table 17.

Table 17

Directional Mean Discrepancy Scores Between Mothers' Estimates of Their Own Children Versus Other Children on the Parent and Other Child Preschool Inventory for Discrepancy, Ethnicity, and Sex Groups

Groups	N	Reward	N	No Reward
Discrepancy				
High	21	- 2.00	13	- 1.15
Low	12	- .84	23	- 1.26
Ethnicity				
Mexican-Americans	23	- 2.35	25	- 1.00
Negroes	10	- 1.20	11	- .18
Sex				
Males	15	- 1.70	22	- .88
Females	18	- 2.45	14	- .86

The fact that mothers in every case underestimated their own children's performance relative to the performance of children in the general society may indicate a projected low self esteem, which appears to be homogeneous within this sample. This inference is drawn from the fact that the mothers, disregarding ethnic grouping, overestimated how well their children could perform relative to their children's actual performance.

Another possibility is that mothers, by underestimating their children's performance, attempted to communicate the need for their children to be in the Head Start program. The question of whether the mothers were "faking bad," or responding to expectations held by the dominant society, i.e., "their children are socially disadvantaged, therefore, not as good as other children," cannot be answered from the data collected in this study.

CHAPTER VII

Conclusion and Implications

One major question this study addressed itself to was, "How can a mother's interaction with her child be changed and strengthened so that she will reinforce appropriate attitudes and habits of learning in her child?" (Liddle & Rockwell, 1966). The general approach used was to increase the attention usually given to a child by his mother by allowing the child to be a contributor, though in a small way, to the family income, where the contribution (reward) itself was "earned" by the child through his efforts in school.

Using this approach, the results of this study only partially answered the above question. Apparently, only Mexican-American mothers and not Negro mothers were affected by the reward. Paradoxically, however, the result was in the opposite direction from that predicted.

This finding points to the necessity of: (1) exercising caution when making assumptions concerning the valence of a reinforcer, and (2) empirically establishing the meaningfulness or relevance of a reinforcer for each subgroup within the heterogeneous group to be studied. The cultural, personal, and social values of the members of any group should be closely considered before embarking on an extensive education intervention program. Once a value system is identified, then application of variables and concepts available in our body of knowledge which have been found to be useful in effecting behavior change, e.g., positive reward and cognitive dissonance, should be adapted to that value system.

It is conceivable that heretofore unknown and important variables may emerge which might necessitate partial or complete alteration of existing education practices for a particular group. For example, recent studies by Spellman (1967) on stimulus preference and learning have shown marked differences between Negroes, Indians, and Anglos with regard to preference for color, form, and size. One implication here is that for different ethnic groups, different size books or print may need to be used to facilitate learning for one group, while different colored print in the books may need to be used for another group.

Within the present study, rewards had opposite effects on achievement scores between the two ethnic groups. For Mexican-American children who were rewarded, learning was facilitated; for Negro children learning appeared to have decreased whether they were rewarded or not (cf. p. 64). These findings may have been reversed if Negro teachers were used instead of Anglo-American teachers.

Another problem with which this research was concerned centered around the assumptions that: (1) teachers who teach socially disadvantaged children for the most part represent different subcultures (Webster, 1966) and (2) certain aspects of teachers' prior social and physical experiences will tend to make them more or less capable of interacting in a satisfying way with those persons who are significantly different from themselves (Webster, 1966; Pierce-Jones, 1966).

The results suggest that when teachers are provided with and give tangible rewards to the children they teach, the reciprocal effects are positive enough to reflect a satisfying teacher-child interaction, that is, one in which the teaching-learning processes continue at near optimal levels.

On the other hand, it may be that teachers' prior experiences and attitudes may be such as to decrease the value of a relatively powerful positive reinforcer. This may have been the case in this study when teachers made ratings of social adjustment for ethnic groups. Teachers rated Negro children as less socially adjusted than Mexican-American children, whether they rewarded them or not. It is possible, of course, that the Negro children actually were less socialized than the Mexican-Americans. However, though these data seem to lend some support to Webster's hypothesis above, further research on the effects of teacher background, as that which has been carried out by Pierce-Jones (1965), is warranted before any grand scale ethnic matching of teachers and students is implemented.

A third question with which this study was concerned was, "Can the rewards which a child brings home change his mother's attitude toward him in terms of how positively she rates his behavior?" This question was explored as another means of not only trying to modify (increase) the communication between a child and his mother, but of also attempting to make whatever communication exists (or will exist) a positive one.

Though all but two mothers whose children received rewards reported that the reward was brought home, their attitudes toward their children did not differ significantly from those of mothers whose children did not receive rewards. Apparently, the rewards were not relevant for the mothers, that is, perceived by them as a connection wherein object A (fruit) is good (to eat), person B (child) provides object A; therefore person B is good, or better than she previously perceived him.

Since teachers' attitudes, measured on the same instrument as the mothers', were highly affected by merely giving rewards, a possibility for effecting attitude change with the mothers might be to provide them with rewards that they may give their own children. The reward then takes on relevance for them since they provide it to their children.

The present study has demonstrated that persons generally classified as socially disadvantaged are not necessarily a homogeneous group. Furthermore, research on programs being planned for such groups must consider the cultural value systems of the subgroups so that the effectiveness of such programs can be adequately evaluated.

The necessity of exercising caution when making predictions of outcomes based on the "established" effects of certain independent variables, e.g., positive reward as a facilitative reinforcer or negative reward as an inhibitive reinforcer of behavior, has also been shown.

One of the primary purposes of this research, namely, to change mothers' attitudes toward their children, still remains a problem for future investigation. The belief that little headway will be made by schools until some parents are communicated with and changed, is almost unanimously held by those concerned with the groups called socially disadvantaged (Webster, 1966).

Summary

The primary purpose of this study was to test the hypothesis that socially disadvantaged children can effect positive attitude change in both their mothers and their teachers when they receive a material reward while in school. The effects of material reward on academic achievement of the children themselves was also evaluated. Sixty-nine mother-child dyads, 48 of whom were Mexican-Americans and 21 of whom were Negroes, and three Anglo-American teachers participated in the study. Mothers and teachers rated their children's behavior on the Head Start Behavior Inventory at the beginning of the school program, and the mothers also made estimates of how well their children could perform on a set of tasks adapted from Caldwell's Preschool Inventory. The children were then tested on the set of tasks and on the Peabody Picture Vocabulary Test. For the next five weeks, on two days per week, approximately half of the children brought a bag of fruit and a toy home with a note from the teacher stating that they had earned the items for doing well in school that day. At the end of the five week period, mothers and teachers again rated the children's general behavior, and the mothers again estimated how well they thought their children could perform another set of tasks. The children were then tested on the post-set of tasks and on a parallel form of the achievement measure. Initial discrepancy scores between the mothers' estimated and children's actual scores and Reward versus No Reward groups were the independent variables in a 2 x 2 factorial design. Mean change discrepancy score from pretest to posttest between mother-child dyads, mean changes in mothers' and teachers' behavior ratings of the children, and changes in children's achievement test scores were the dependent variables. An overall significant difference between mothers' behavior ratings of children who were rewarded versus mothers' ratings of children who were not rewarded was not found. Teachers rated children whom they rewarded significantly better socially adjusted than children whom they did not reward. Children who were rewarded did not have significantly higher achievement scores than children who were not rewarded. However, a within-ethnic analysis revealed that while reward had no significant effect on Negro children's achievement scores, rewarded Mexican-American children scored significantly higher on the achievement posttest than nonrewarded Mexican-American children. Overall significant change in discrepancy score from pretest to posttest between mother-child dyads as a function of reward was not found. Again, a within-ethnic group analysis revealed significant differences between Mexican-American and Negro dyads. Mexican-American mothers' estimates of how well their children could perform remained significantly closer to the children's actual change in performance than Negro mothers' estimates. On the basis of these findings some proposals for differential treatment of ethnic groups, in terms of working within their respective value orientations toward education, were suggested. It was emphasized that caution be exercised when making assumptions concerning homogeneity within socio-economic group classifications.

REFERENCES

Antonovsky, H. F. A contribution to research in the area of the mother-child relationship. Child Development, 1959, 30, 37-51.

Ausubel, David P. The influence of experience on the development of IQ. Unpublished memorandum circulated by Carson McGuire, University of Texas, 1963.

Bandura, A., & Walters, R. H. Adolescent aggression. New York: Ronald Press, 1959.

Bernstein, B. Language and social class. British Journal of Sociology, 1960, 11, 271-276.

Bloom, B. S., Davis, A., & Hess, R. Compensatory education for cultural deprivation. New York: Holt, Rinehart, & Winston, 1965.

Bush, R. N. The teacher-pupil relationship. New York: Prentice-Hall, 1954.

Casler, L. The effects of extra tactile stimulation on a group of institutionalized infants. Genet. Psychol. Monogr., 1965, 71, 137-175.

Cofer, C. N., & Appley, M. H. Motivation: theory and research. New York: Wiley & Sons, 1964.

Culbertson, C. The culturally deprived child: some implications for teaching. Unpublished mimeograph, University of Texas, Fall 1965.

Deutsch, C. Auditory discrimination and learning: social factors, In Passow, A. H., (ed.), Education in depressed areas. New York: Bureau of Publications, Teachers College, Columbia University, 1963.

Dits, A., & Cambier, A. L'absence de la mere lors du retour de l'enfant de l'ecole. Enfance, 1966, 1, 99-110. Psych. Abs.

Erikson, E. Childhood and society. New York: Norton & Co., 1950.

Festinger, L. *Theory of cognitive dissonance*. New York: Row, Peterson, 1957.

Garcia, P. A view of Mexican-Americans. *Unpublished mimeograph*, University of Texas, Fall 1966.

Glatt, C. A. Who are the deprived children? *Elementary School Journal*, 1965 (May), 65, 407-413.

Goff, R. Some educational implications of the influence of rejection on aspiration levels of minority group children. *Journal of Experimental Education*, 1954 (Dec.), 23, 179-183.

Goldfarb, W. Effects of psychological deprivation in infancy and subsequent stimulation. *American Journal of Psychiatry*, 1945 (July), 102, 18-33.

Gordon, E. W., ed. Education for socially disadvantaged children. *Rev. of Educ. Res.*, 1965, 35, (5), entire issue.

Gordon, E. W., & Wilkerson, D. A. *Compensatory education for the disadvantaged*. New York: College Entrance Examination Board, 1966.

Gotts, E. What is cultural deprivation? *Unpublished mimeograph*, University of Texas, Fall 1966.

Harrison, E. C. Working at improving the motivational and achievement levels of the deprived. *Journal of Negro Education*, 1963 (Summer), 32, 301-307.

Havighurst, R. J. Who are the socially disadvantaged? *Journal of Negro Education*, 1964 (Summer), 33, 225-231.

Horowitz, E. L. Child-adult relations in preschool years. *Journal of Social Psychology*, 1940, 2, 41-58.

Iscoe, I. Psychological and motivational aspects of poverty. *Unpublished mimeograph*, Dept. of Psychology, University of Texas, July 1965.

Larson, R., & Olson, J. L. A method for identifying culturally deprived kindergarten children. *Exceptional Children*, 1963 (Nov.), 30, 130-134.

Liddle, G. P., & Rockwell, R. E. The role of parents and family life, In Webster, S. W., The disadvantaged learner. San Francisco: Chandler Publishing Co., 1966.

Lipton, A. Cultural deprivation. J. Educ. Sociol., 1962 (Sept.), 36, 17-19.

Madsen, W. The Mexican-Americans of South Texas. New York: Holt, Rinehart, Winston, 1964.

Maier, H. W. Three theories of child development. New York: Harper and Row, 1965.

Mackler, B., & Giddings, M. Cultural deprivation: a study in mythology. Teachers College Record, 1965 (April), 66, 608-613.

Medinnus, G. R. The relation between several parent measures and the child's early adjustment in school. J. of Educ. Psych., 1961, 52, 3, 153-156.

Milner, E. A study of the relationship between reading readiness in grade one school children and patterns of child-parent interaction. Child Development, 1951 (June), 22, 95-112.

Paz, O. The labyrinth of solitude, life and thought in Mexico. New York: Grove Press, 1961.

Pierce-Jones, J. Outcomes of individual and programmatic variations among project head start centers. Final report submitted to OEO, project head start, University of Texas, Summer 1966.

Sears, R. R. Theoretical framework for personality and social behavior. American Psychologist, 1951a, 6, 476-482.

Sontag, L. W., Baker, C. T., & Nelson, V. L. Mental growth and personality development: a longitudinal study, In Mussen, P. H., Conger, J. J., & Kagan, J. (eds.), Readings in child development. New York: Harper and Row, 1965.

Rheingold, H. L., & Bayley, N. The later effects of an experimental modification of mothering. Child Development, 1959 (Sept.), 30, 363-372.

Riessman, F. The culturally deprived child. New York: Harper, 1962.

Riessman, F. The culturally deprived child: a new view. In U.S. Office of Education, Programs for the educationally disadvantaged. Washington, D. C.: Government Printing Office, Document # OE-35044, 1963.

Spellman, C. Stimulus preference-cognitive style and conceptual conflict in the culturally deprived child. Unpublished mimeograph, Child Development Evaluation Research Center, University of Texas, 1967.

Tamkin, A. S. Survey of pathogenic parental attitudes in parents of emotionally disturbed children. Psych. Reports, 1964, 15 (1), 36.

Terrell, G., Jr., Durkin, K., & Wiesley, M. Social class and the nature of the incentive in discrimination learning. J. Abn. & Soc. Psychol., 1959, 59, 270-272.

Webster, S. W. The teacher as an alien, In Webster, S. W. (ed.), The disadvantaged learner. San Francisco: Chandler Publishing Co., 1966.

APPENDIX A

Preschool Inventory[1]
English and Colloquial Spanish
(Total Form)

1. What is your name?
Como te llamas?

2. What is your last name?
Como te apellidas?
Que es tu apellido? First name de que? First name que?

3. How old are you?
Cuantos anos tienes?

4. When is your birthday?
Cuando es tu cumpleanos?

5. Show me your eye!
Ensename tu ojo!

6. Show me your neck!
Ensename tu cuello!
Ensename tu pesquezo!

7. Show me your shoulder!
Ensename tu hombro!

8. Show me your heel!
Ensename tu talon!

9.-12. What's this __________ What else do we call it? __________
Que es esto? De que otro modo lo llamamos (decimos)?
De que otra manera o modo se dice?

9. Ear - la oreja (oido)

---

[1] Adapted from Bettye M. Caldwell and Donald Soule's Preschool Inventory, December, 1965.

10. Finger - el dedo

11. Knee - Rodilla

12. Elbow - el codo

Say, "That's good. Now I want you to do some more things for me."
Muy bien. Ahora quiero que hagas otras cosas.
Vas muy bien. Ahora, quiero que hagas mas cosas para mi.

13. Raise your hand!
Levanta la mano!
Levanta tu mano!

14. Wiggle - Meneate! (muevete, bullete)

15. Say "hello" very loudly.
Di -- Que hubole -- en voz alta.
Di "hello" muy fuerte o recio.

16. Say "hello" very softly.
Di -- Que hubole -- en voz muy bajita!
Di "hello" muy quedito!

17. Now stand up and face the door.
Ahora levantate y mira hacia la puerta.
Ahora levantate y voltea frente a la puerta.

18. Now jump!
Ahora, brinca!

19.-26. Say "That's very good, now sit down in your chair."
Muy bien. Ahora sientate en la silla.
Vas muy bien, ahora, sientate en tu silla.

19. Put the red car on the black box.
Pon el automovil rojo en la caja negra.
Pon el carro colorado en la caja negra.

20. Put the blue car under the green box.
Pon el automovil azul debajo de la caja verde.
Pon el carro azul debajo de la caja verde.

21. Put the yellow car on the little box.
Pon el automovil amarillo en la cajita.
Pon el carro amarillo sobre la caja chiquita.

22. Put one car in the middle sized box.
Pon un automovil en la caja mediana.
Pon un carro en la caja mediana.

23. Put all the cars on one side of the table and all the boxes on the other side of the table.
Pon todos los automoviles en un lado de la mesa y todas las cajas en el otro lado de la mesa.
Pon todos los carros en un lado de la meza, y todas las cajas en el otro lado de la meza.

24. Put three cars in the big box.
Pon tres automoviles en la caja grande.
Pon tres carros en la caja grande.

25. Put two cars behind the box in the middle.
Pon dos automoviles detras de la caja de en medio.
Pon dos carros detras de la caja que esta en el medio.

26. Give everything to me!
Dame todo!

27.-28. Say, "Let's pretend this is a train. You know what a train is, don't you? You know, it has a lot of cars, one after the other like this."
Vamos a jugar que este es un tren. Tu sabes lo que es un tren, verdad? Ya sabes que son muchos carros de ferrocarril uno tras otro, asi.
Vamos a jugar que este es un tren. Sabes lo que es un tren, verdad? Ya sabes que tiene muchos carros, uno detras del otro, asi.

27. Do you know what we call this first car, the one that pulls the train?
Sabescomo se llama este primer carro, el que jala en tren?
Sabes lo que le nombramos al primer carro, el que estira el tren?

Engine	Diesel
Maquina (locomotora)	Diesel
maquina del tren	Marranita

28. What do we call the last car on a freight train?
Caboose ___________
Como llamamos al ultimo carro en un tren de carga?
Furgon (Carro) de cola.

29.-33. Have you ever been on a swing? You know how a swing goes--up and down and back and forth.
?Te has paseado en un columpio? Ya sabes como se mueve--para arriba y para en frente, para atras y para arriba.
?Te has columpiado en un columpio? Ya salier como se mueve un columpio, para arriba y para abajo, para atras y para delante.

29. All right now, which way does a saw go?
Muy bien; ahora, como se mueve una sierra. (serrucho would be more common)

30. Which way does an elevator go?
?Como se mueve el ascensor? (elevador, more common)
?Pare donde anda (o camine) un elevador?

31. Which way does a ferris wheel go?
?Como se mueve la gran rueda (de la fortuna)?
?Como anda una montana del carnaval?

32. Which way does a phonograph record go?
?Como se mueve un disco de musica?
?Como ande un disco del tocadisco?

33. Which way does a waterfall go?
?Como se mueve una caida de agua?
?Para donde anda una caida de agua?

34. When do we eat breakfast?
?Cuando almorzamos (nos desayunamos)?
?Cuando comemos el almuerzo?

35. What is the time of the year when it is the hottest?
?En que tiempo del ano hace mas calor?

36. What is the time of the year when it is the coldest?
?En que tiempo del ano hace mas frio?
?Cual es el tiempo del ano cuando hace mas frio?

37. What time of year is it now?
?Que tiempo del ano es ahora?

38. If you wanted to find a lion, where would you look?
Si quisieras encontrar un leon, ?en donde lo buscarias?
Si quisieras hallar un leon, donde buscarias?

39. If you wanted to buy some gas, where would you go?
Si quisieras comprar gasolina, ?adonde irias?

40. If you were sick, who would you go to?
Si estuvieras enfermo, ?con quien irias?

41. If you wanted to find a boat, where would you look?
Si quisieras encontrar un barco, ?en donde lo buscarias?
Si quisieras hallar un barco, donde buscarias?

42. If you wanted to read something, what would you do?
Si quisieras leer algo, ?que harias?

43. What does a dentist do?
?Que hace un dentista?

44. What does a policeman do?
?Que hace un policia?

45. What does a teacher do?
?Que hace una maestra?

46. What does a father do?
?Que hace un papa?

47. What does a mother do?
?Que hace una mama?

48.-56. "How many is that?" "How many altogether?"
?Cuanto es eso? ?Cuantos por todos?

48.-51. How many _______________ do you have?
?Cuantos (?Cuantas) _______________ tienes?

48.	Eyes	ojos
49.	Noses	narices
50.	Hands	manos
51.	Toes	dedos de los pies

52.-56. How many wheels does a _______________ have?
?Cuantas ruedas tiene un (una) _______________?

52.	Car	automovil	carro

53.	Bicycle	bicicleta	
54.	Tricycle	triciclo	bicicleta de bebitos
55.	Wheelbarrow	carrucha	carretilla
56.	Rowboat	bote de remos	barquito de ramos

57. Let's hear you count out loud. Can you count any more?
!Cuenta en voz alta! ?Puedes contar mas?
Dejame oirte contar fuerte, recio o en voz alta. Puedes contar mas?

58. How many corners does this sheet of paper have?
?Cuantos angulos tiene esta hoja de papel?
?Cuantos esquinas tiene esta hoja de papel?

59.-61.

59. Which has more checkers in it? (Two piles of 2 and 8 checkers)
?Cual tiene mas cuadros?
?Cual tiene mas damas?

60. Which has more checkers in it? (Two piles of 6 and 6 checkers)
?Cual tiene mas cuadros?
?Cual tiene mas damas?

61. Which has fewer checkers in it?(Two piles of 2 and 8 checkers)
?Cual tiene menos cuadros?
?Cual tiene menos damas?

62.-66. Put these checkers next to each other in a row.
! Pon estos cuadros en una hilera!
Pon estas damas una en seguida de la otra en una linea.

62. Give me the middle one.
!Dame el de en medio!
Dame la del medio.

63. Give me the first one.
!Dame el primero.
Dame la primera.

64. Give me the last one.
!Dame el ultimo!
Dame la ultima.

65. Give me the second one.
!Dame el segundo!
Dame la segunda.

66. Give me the next to the last one.
!Dame el penultimo!
Dame la antes de la ultima (o penultima).

67.-70. Now I'd like you to make some drawings. Make one like this. Make yours right here.
Ahora quiero que hagas unos dibujos. !Haz uno como este! !Hazlo aqui!
Ahora quisiera que hicieras unos monitos. Haz uno como este. Haz el tuyo aqui asi.

71.-73. Which one is most like a __________? Which one of these is that?
?Cual es mas como un (una) __________? ?Cual de estos es?
?Cual es mas parecida a una __________? ?Cual de estas es esa?

71. Wheel una rueda

72. Tent una carpa

73. Stick ______________ Now listen carefully.
Palo Ahora, !escucha bien!
Ahora, oyeme (o escuchame) bien.

74. Which is bigger, a ball or a bicycle?
?Cual es mas grande, una pelota o una bicicleta?

75. Which is bigger, a tree or a flower?
?Cual es mas grande, un arbol o una flor?

76. Which is slower, a car or a bicycle?
?Cual corre mas despacio, lun automovil o una bicicleta?
?Cual es mas despacio, un carro o una bicicleta?

77. Which is heavier, a brick or a shoe?
?Cual pesa mas, un ladrillo o un zapato?
?Cual es mas pesado un ladrillo o un zapato?

78. Which is heavier, a feather or a fork?
?Cual pesa mas, una pluma o un tenedor?
?Cual es mas pesada, una pluma de pajaro o un tenedor?

79.-80. What color is this?
?De que color es esto?

79.	Red	rojo
80.	Black	negro

81. Which one of these is the color of the sky?
?Cual de estos es el color del cielo?

82. Which one is the color of night?
?Cual es el color de la noche?

83. Color the circle yellow.
!Pinta el circulo amarillo!
!Pinta la rueda amarilla!

84. Color the square purple.
!Pinta el cuadro morado! (o violeta)

85. Color the triangle orange.
!Pinta el triangulo anaranjado!

APPENDIX B

Preschool Inventory Form A (pretest)

Child's Name ____________________ Tester ________________

School _________________________ Date __________________

Podria ______________ responder a las siguientes preguntas? . . .

R W 1. Sabe ______________ decir su nombre?
R W 2. Sabe ______________ decir su apellido?
R W 3. Sabe ______________ cuantos anos tiene?
R W 4. Sabe ______________ cuando es su cumpleanos?

Cree Ud que ______________ responderia correctamente si le pido que . . .

R W 5. Me muestre su ojo.
R W 6. Me muestre su pezcuezo.
R W 9. Que me diga como se llama esto (show ear)
R W 11. Que me diga como se llama esto (rodilla)

Si le pido a ______________ que . . .

R W 13. Levante la Mano . . . obedeceria?
R W 15. Me diga hola (Hello) muy suavemente (quedito)

(MOSTRANDO A LA MADRE LAS CAJAS Y CARROS

Si le pido a ______________ que . . .

R W 19. Ponga el carrito rojo dentro de la caja negra.
R W 24. Ponga los tres carritos dentro dela caja mas grande.
Si le preguntara a ______________.
R W 29. Como se mueve un serrucho . . . Que me diria.

Si le pregunta a _______________ . . .

R W 35. Cual ES EL TIEMPO DEL ANO EN QUE HACE MAS CALOR?
R W 37. En que tiempo del ano estamos ahora.
R W 38. Donde cree Ud que _______________ buscaria si quisiera encontrar un leon?
R W 40. Que diria _______________ si le pregunto. Donde quien irias si estuvieras enfermo?

Cree Ud que Juanito sabe responder a la pregunta . . .

2 1 0 43. Que hace el dentista. Response: __________________
2 1 0 46. Que hace el papa. Response: __________________

Que cree ud que _______________ responderia si le pregunto . . .

R W 48. Cuantos ojos tienes tu.
R W 50. Cuantas manos tienes tu.
R W 52. Cuantas ruedas tiene un carro.

R W 57. Hasta cuanto sabe contar _______________?

Si le muestro estas checkers y le pregunto . . .

R W 59. Cual monton son mas fichas . . .
R W 62. Muestrame la del medio.
R W 64. Muestrame la ultima

Cree Ud que _______________ sabe . . .

R W 67. Hacer una linea
R W 69. Un cuadrado.

MOSTRANDO LA HOJA CON FIGURAS

Cual mostraria _______________ si le pregunto . . .

R W 71. Cual de estas es mas parecida a una rueda.
R W 74. Que es mas garnde; una pelota (bola) o una bicicleta?
R W 77. Que es mas pesado; un ladrillo o un zapato?

MOSTARANDO LOS LAPICES

R W 79. Sabe Juanito que color es este (rojo)
R W 80. Que color es este (negro)

Si le pido que

R W 84. Pinte el cuadrado morado (purpura), cree Ud que tomaria el lapiz que corresponde y pintaria el cuadrado?

APPENDIX B-Continued

Preschool Inventory Form B (post-test)

Child's Name ____________________ Tester ________________

School __________________________ Date __________________

Podria ______________ responder a las siguientes preguntas?

R W 1. Sabe ______________ decir su nombre?
R W 2. Sabe ______________ decir su apellido?
R W 3. Sabe ______________ cuantos anos tiene?
R W 4. Sabe ______________ cuando es su cumpleanos?

Cree Ud que ____________ responderia correctamente si le pido que . . .

R W 7. Me Muestre su hombro?
R W 8. Me muestre su talon?
R W 10. Me diga como se llama esto? (showing a finger)
R W 12. Me diga como se llama esto? (showing the elbow)

Si le pido a ________________ que . . .

R W 15. Me diga (hello) muy recio. (Fuerte)
R W 18. Que brinque? (salte)
R W 20. Que ponga el carrito azul debajo de la caja verde?
R W 25. Que ponga dos carritos detras de la caja del medio?

Si le pregunta a ______________ . . .

R W 32. Como da vueltas un disco? En un tocadiscos.
R W 36. Cual es el tiempo del ano en que hace mas frio (esta mas frio)
R W 37. En que tiempo del ano estamos ahora?
R W 39. Donde cree Ud que ____________ iria si quisiera comprar Gasolina?

R W 42. Que cree ud que _______________ haria si quisiera leer algo?
2 1 0 44. Que hace un policia? Response ___________________
2 1 0 47. Que hace la mama (una mama) Response ____________

Que cree Ud que _________________ responderia si le pregunto . . .

R W 49. Cuantas narice tienes tu?
R W 51. Cuantos dedos tienes tu?
R W 53. Cuantas ruedas tiene una bicicleta?
R W 58. Cuantas esquinas tiene esta hoja de papel?

Si le muestro a _____________ estas checkers y le pregunto . . .

R W 61. En cual monton (pila) hay menos? (8 & 2 checkers)
R W 63. Muestrame la primera? (la que esta primero)
R W 65. Muestrame la segunda?

Cree Ud que ________________ sabe . . .

R W 68. Hacer una redondela (dibujar un circulo)
R W 70. Hacer un triangulo (dibujar un triangulo)
(Mostrando la hoja con figuras)

Cual mostraria _______________ si le pregunto . . .

R W 73. Cual se parece mas a un palo?
R W 75. Cual es mas grande; un arbol (palo?) o una flor?
R W 78. Cual es mas pesado; una pluma o un tenedor?
(Mostrando los lapices)
R W 79. Sabe ______________ que color es este? (rojo, colordo)
R W 80. Sabe ______________ que color es este? (negro) (prieto)

Si le pido a ________________ que . . .

R W 85. Pinte el triangulo de color naranja, cree Ud que tomaria el lapiz que corresponde y pintaria el triangulo?

APPENDIX C

PRESCHOOL INVENTORY FORM A

(Other Children)

Parent Name ________________________ Date ____________________

Child's Name _______________________ Interviewer ____________

School _____________________________

Note for Interviewers:

This is the same form you administered to the parent on the first interview. The following statements should preceed each question:

"Que cree Ud que responderian otros ninos de la misma edad que el suyo si le preguntara . . ."

"What do you think other children the same age as your own child would say if I asked the question . . ."

For example:

"Cree Ud que otros ninos de la misma edad que el suyo podrian decirme el nombre y apellido?"

"Do you think children the same age as your own child would be able to tell me their first and last name?"

Preschool Inventory Form A (pretest)

Podria ______________ responder a las siguientes preguntas? . . .

R W 1. Sabe ____________ decir su nombre?
R W 2. Sabe ____________ decir su apellido?
R W 3. Sabe ____________ cuantos anos tiene?
R W 4. Sabe ____________ cuando es su cumpleanos?

Cree Ud que ______________ responderia correctamente si le pido que . . .

R W 5. Me muestre su ojo.
R W 6. Me muestre su pezcuezo.
R W 9. Que me diga como se llama esto (show ear)
R W 11. Que me diga como se llama esto (rodilla)

Si le pido a __________ que . . .

R W 13. Levante la Mano . . . obedeceria?
R W 15. me diga hola (Hello) muy suavemente (quedito)

(MOSTRANDO A LA MADRE LAS CAJAS Y CARROS

Si le pido a ____________ que . . .

R W 19. Ponga el carrito rojo dentro de la caja negra.
R W 24. Ponga los tres carritos dentro dela caja mas grande.
Si le preguntara a ______________.
R W 29. Como se mueve un serrucho . . . Que me diria.

Si le pregunta a ______________. . .

R W 35. Cual ES EL TIEMPO DEL AND EN QUE HACE MAS CALOR?
R W 37. En que tiempo del ano estamos ahora.
R W 38. Donde cree Ud que __________ buscaria si quisiera encontrar un leon?
R W 40. Que diria __________ si le pregunto.
Donde quien irias si estuvieras enfermo?

Cree Ud que Juanito sabe responder a la pregunta . . .
2 1 0 43. Que hace el dentista. Response ______________________
2 1 0 46. Que hace el papa. Response ______________________

Que cree ud que ________ responderia si le pregunto . . .

R W 48. Cuantos ojos tienes tu.
R W 50. Cuantas manos tienes tu.
R W 52. Cuantas ruedas tiene un carro.

R W 57. Hasta cuanto sabe contar ______________?

Si le muestro estas checkers y le pregunto . . .

R W 59. Cual monton son mas fichas . . .
R W 62. Muestrame la del medio.
R W 64. Muestrame la ultima

Cree Ud que ____________ sabe . . .

R W 67. Hacer una linea
R W 69. Un cuadrado.

MOSTRANDO LA HOJA CON FIGURAS
Cual mostraria __________ si le pregunto . . .

R W 71. Cual de estas es mas parecida a una rueda.
R W 74. Que es mas garnde; una pelota (bola) o una bicicleta?
R W 77. Que es mas pesado; un ladrillo o un zapato?

MOSTARANDO LOS LAPICES

R W 79. Sabe Juanito que color es este (rojo)
R W 80. Que color es este (negro)

Si le pido que

R W 84. Pinte el cuadrado morado (purpura), cree Ud que tomaria el lapiz que corresponde y pintaria el cuadrado?

APPENDIX D

Next Appt. Time ____________
And Day __________________

Behavior Inventory Form A
(Parents)

Parent Name ____________________ Date ________________

Child's Name __________________ Interviewer __________

School _______________________ Score _______________

1. Is methodical and careful in the tasks that he undertakes?
Toma su tiempo y es cuidadoso en todo lo que hace?

(Eg.) Does he put away his clothes and toys and take good care of them?
Cuida bien sus juguentes y ropa y los guarda cuando acaba con ellos?

Very much like	Somewhat like	Very little like	Not at all like
Muy Parecido	Algo Parecido	Muy Poco Parecido	No Se Parece

2. Has little respect for the rights of other children, refuses to wait his turn and takes toys the other children are playing with.
Tiene poco respeto de los derechos de los otros ninos.

(Eg.) He doesn't wait for his turn and he takes toys away from other children.
No se espera su turno y le quita los juguetes a los otros ninos.

(Scale on next page)

Somewhat like	Very little like	Not at all like	Very much like
Algo Parecido	Muy Poco Parecido	No Se Parece	Muy Parecido

3. Greatly prefers the habitual and familiar to the novel or unfamiliar.
Cual es lo que prefiere mas lo que el conoce o lo que es nuevo o desconocido?

(Eg.) Does he like to play just one or two games in the same place or does he like to play a lot of different games in different places?
Prefiere jugar siempre a lo mismo en il mismo eugar o le justa cambiar y hacer cosas nuevas.

Very little like	Not at all like	Very much like	Somewhat like
Muy Poco Parecido	No Se Parece	Muy Parecido	Algo Parecido

4. Is he wanted as a playmate by other children?
Lo buscan otros ninos para jugar?

Not at all like	Very much like	Somewhat like	Very little like
No Se Parece	Muy Parecido	Algo Parecido	Muy Poco Parecido

NOTE: In the original instrument the scales followed each of the following items in rotated manner as above.

5. Is very suggestible; lets other children boss him around.
Se deja mandar por otros ninos?

(Eg.) When he plays with children of his own age does he let the children tell him what to do?

Cuando juega con ninos de su edad se deja que lo manden?

6. Is usually polite to adults, says "please," "thank you," etc., without being told.
Sabe portarse bien con la gente grande sin tener que decirle.

(Eg.) Does he say please, thank you, etc.?
Dice por favor, mande, gracias, etc.?

7. Emotional response is customarily very strong over response to usual frustrations and difficulties.
Tiene reacciones muy intensas cuando no le dan lo que quiere.

(Eg.) If he wants to go out and play with his friends and you say no does he throw a fit?
Cuando quiere ir a jugar con sus amigos y usted le dice que no, se pone a llorar?

8. Often keeps aloof from others because he is uninterested, suspicious, or bashful.
Se mantiene aparte o solo por falta de interes, o es timido.

9. He talks eagerly to adults about his own experiences and what he thinks.
Habla con facilidad con la gente grande acerca de lo que hace y ve.

(Eg.) When he goes to the movies does he tell about it to the family or to other people?
Cuando va al cene viene y le platica a la familia o a otra gente lo que vio?

10. Goes about with his activities with a minimum assistance from others?
Hace lo que tiene que hacer o lo que quiere el hacer necesitando poca ayuda de otros?

(Eg.) Can he do an errand well without much help?
Puede Hacer un mandado con poca ayuda?

11. When faced with a difficult task he either does not attempt it or gives up very quickly.

Cuando tiene que hacer algo dificil no lo hace o lo deja antes de acabar.

(Eg.) If you tell him/her does he/she dress themselves completely?
Si le dice que se vista completamente y tiene algun problema--por ejemplo abrocharse los zapatos o peinarse. No trata de hacerlo, o si trata lo deja rapidamente?

12. Is he even-tempered, imperturbable; is rarely annoyed or cross?
El es tranquilo; no se deja que lo hagan enojar?

(Eg.) When he's playing with other children and they bother him can they make him angry easily?
Cuando juega con otros ninos y lo molestan no lo hacen enojar facilmente?

APPENDIX D-Continued

Behavior Inventory Form B
(Parents)

Parent Name ______________________ Date ________________

Child's Name ______________________ Interviewer __________

School __________________________ Score ________________

1. Does he stick with a job until it is finished?
Sigue _________ tratanto de hacer una cosa hasta que acaba?

(Eg.) His homework or home duties?
Sus tareas y cosas que ud le pide?

Very much like	Somewhat like	Very little like	Not at all like
Muy Parecido	Algo Parecido	Muy Poco Parecido	No Se Parece

2. Is he uncooperative in group activities?
No toma parte activamente en juegos o actividades en grupo (con otros ninos)?

Somewhat like	Very little like	Not al all like	Very much like
Algo Parecido	Muy Poco Parecido	No Se Parece	Muy Parecido

3. Is he reluctant to use imagination; tends not to enjoy "make-believe" games?
No le gusta usar la imaginacion; No le gustan los juegos en que hay que imaginarse cosas?

(Eg.) He doesn't like to play cowboys with a broomstick or pretend he is driving a car using only a box.
No le gusta jugar a los cowboys con una escoba o jugar a los carritos con una caja vacia?

Very little like	Not at all like	Very much like	Somewhat like
Muy Poco Parecido	No Se Parece	Muy Parecido	Algo Parecido

4. Is he eager to tell other children of the experiences he has had? The things he has done?
Le gusta platicarle a otros ninos las cosas que hace (o los lugares que visita)?

(Eg.) A visit to the zoo, a park, the lake, etc.
Visitas al zoo, parque, el lago, etc.

Not at all like	Very much like	Somewhat like	Very little like
No Se Parece	Muy Parecido	Algo Parecido	Muy Poco Parecido

NOTE: In the original instrument the scales followed each of the following items in rotated manner as above.

5. Does he require the company of other children; does he find it difficult to work or play by himself?
Necesita de la compania de otros ninos; se le hace duro, (deficil) jugar o trabajar solo.

(Eg.) Can he play or work alone?
Puede el jugar o hacer sus tareas solo?

6. Is he usually polite to adults; does he say please, thank you, etc.?
Sabe siempre cono portarse con la gente grande?

(Eg.) Does he say thank you, etc.?
Dice por favor, mande, gracias, etc.?

7. Does he respond to frustration or disappointment by becoming sullen, withdrawn, or sulky?
Reacciona a (la frustracion) una situacion dificultosa o desencanto poniendose arisco, enojado?

(Eg.) When you don't allow him to go out to play, does he react by becoming very quiet and sad?
Cuando Ud no lo deja salir, que hace?

8. Does he often keep aloof from others because he is uninterested, suspicious, or bashful?
Se mantiene aparte o solo por falta de interes o porque es timido?

9. Does he ask many questions for information about things, persons, etc.?
Se fija en todo ________; pregunta cosas de la gente, sobre lo que no sabe, etc.?

10. Does he try to figure out things for himself before asking adults or other children for help?
Trata de entender cosas por si solo antes de preguntar a los grandes o a otros ninos?

11. Is he easily distracted by things going on around him?
Se distrae facilmente con cosas que pasan cuando esta Haciendo sus tareas de la escuela?

12. Is he usually carefree; does he rarely become frightened or apprehensive?
Es el generalmente tranquilo; rara vez se asusta o se preocupa?

APPENDIX E

BEHAVIOR INVENTORY FORM A

(Teachers)

Child's Name ______________ Age ___ Birthdate ______________
Mo. Day Year

Morning Session ______________

Afternoon Session ______________ School ______________

Date ______________ Teacher ______________

INSTRUCTIONS: Please indicate as accurately as possible how this child behaves by marking one of the four responses to each question with a vertical slash line (/). Base your response to every item on your personal observation and experience with the child.

1. Is usually carefree; rarely becomes frightened or apprehensive.

Very much like	Somewhat like	Very little like	Not at all like

2. Is easily distracted by things going on around him.

Somewhat like	Very little like	Not at all like	Very much like

3. Is sympathetic, considerate, and thoughtful toward others.

Very little like	Not at all like	Very much like	Somewhat like

4. Is very suggestible; lets other children boss him around.

Not at all like	Very much like	Somewhat like	Very little like

5. Talks eagerly to adults about his own experiences and what he thinks.

6. Is unduly upset or discouraged if he makes a mistake or does not perform well.

7. Often keeps aloof from others because he is uninterested, suspicious, or bashful.

8. Defends or praises his own efforts.

9. Is confident that he can do what is expected of him.

10. Is jealous; quick to notice and react negatively to kindness and attention bestowed upon other children.

11. Is methodical and careful in the tasks that he undertakes.

12. Is rarely able to influence other children by his activities or interests.

13. Tries to figure out things for himself before asking adults or other children for help.

14. Greatly prefers the habitual and familiar to the novel and the unfamiliar.

15. Appears to trust in his own abilities.

16. Has little respect for the rights of other children; refuses to wait his turn, usurps toys other children are playing with, etc.

17. Seems disinterested in the general quality of his performance.

18. Responds to frustration or disappointment by becoming aggressive or enraged.

19. Is excessive in seeking the attention of adults.

20. Sticks with a job until it is finished.

21. Goes about his activities with a minimum of assistance from others.

22. Is constricted, inhibited, or timid; needs to be urged before engaging in activities.

23. Is even-tempered, imperturbable; is rarely annoyed or cross.

24. Is reluctant to talk to adults; responds verbally only when urged.

25. Works earnestly at his classwork or play; does not take it lightly.

26. Is often quarrelsome with classmates for minor reasons.

27. Does not need attention or approval from adults to sustain him in his work or play.

28. When faced with a difficult task, he either does not attempt it or gives up very quickly.

29. Does not like to be interrupted when engaged in demanding activities, e.g., puzzles, painting, constructing things.

30. Welcomes changes and new situations; is venturesome, explores, and generally enjoys novelty.

31. Calmly settles difficulties that arise without appeal to adults or others.

32. Is reluctant to use imagination; tends not to enjoy "make-believe" games.

33. Likes to talk with or socialize with the teacher.

34. Often will not engage in activities unless strongly encouraged.

35. Is eager to inform other children of the experiences he has had.

36. Emotional response is customarily very strong; over-responds to usual classroom problems, frustrations, and difficulties.

37. Is uncooperative in group activities.

38. Is usually polite to adults; says "Please," "Thank you," etc.

39. Asks many questions for information about things, persons, etc. (Emphasis here should be on questions prompted by genuine curiosity rather than bids for attention.)

40. Usually does what adults ask him to do.

41. Requires the company of other children; finds it difficult to work or play by himself.

42. Responds to frustration or disappointment by becoming sullen, withdrawn, or sulky.

43. Demonstrates imaginativeness and creativity in his use of toys and play materials.

44. Insists on maintaining his rights, e.g., will not yield his place at painting, or at the carpentry bench, etc.; insists on getting his turn on the slide or in group games, etc.

45. Is wanted as a playmate by other children.

46. Is lethargic or apathetic; has little energy or drive.

47. Has a tendency to discontinue activities after exerting a minimum of effort.

48. Is generally a happy child.

49. Approaches new tasks timidly and without assurance; shrinks from trying new things.

50. What he does is often imitated by other children.

APPENDIX E-Continued

BEHAVIOR INVENTORY FORM B

(Teachers)

Child's Name ________________ Age __ Birthdate ______________
Mo. Day Year

Morning Session ____________

Afternoon Session ___________ School _________________________

Date _________________________ Teacher ________________________

INSTRUCTIONS: Please indicate as accurately as possible how this child behaves by marking one of the four responses to each question with a vertical slash line (/). Base your response to every item on your personal observation and experience with the child.

The rest of this form is identical to Behavior Inventory Form A (Teachers) and will, therefore, not be repeated here.

APPENDIX F

Introduction

"Muy buenos dias (tardes) senora. Asiento por favor."

"Mi nombre es __________ ____________. La Universidad de Texas y Head Start Estamos trabajando en conjunto aqui para que podamos ayudarles a ud y sù hijo (hija) lo mejor posible en la escuenla, necesitamos que ud nos conteste algunas preguntas aserca de lo que ____________ hace en la casa."

"En cada pregunta que le voy a hacer me interesa saber el grado en que __________ es o no es asi; por ejemplo:"

Go through the Behavior Inventory Items

"Como sabemos que cada nino es differente cuando viene a lo escuela, para que la profesora trabaje mejor con el necesitamos que ud nos diga algunas de las cosas que __________ sabe o no sabe o puede o no puede hacer, por ejemplo:"

Go through the Preschool Inventory Items

"Como parte del programa, esta escuela dara pequenos premios por lo bien que los ninos hagan sus cosas durante la semana.

Esto durara approximadamente tres o cuatro semanas. Por eso, talvez __________ llegara a la casa con algunas cosas que el gane en la escuela.

Quisiera agradecerla por haber venido hoy. En dos meses mas necesitaremos que ud. venga para que podamos conversar acerca de los progresos de __________ en la escuela.

A que hora del dia es mejor para ud. venir? Nosotros arreglaremos una hora para ud. y le avisaremos por carta el dia y la hora con anticipacion.

Si ud. tiene alguna pregunta sobre ____________ en la escuela, por favor avisele el Sr. ____________ (principal's name).

Adios, muchas gracias y la veremos pronto. Gracias.

APPENDIX F-Continued

Introduction

My name is ________________, and I am working with the Head Start program from the University. So that we can help you and your child get the most from this program, we need some more information from you about him/her.

First of all, we would like to know a little about ________________ behavior around the home, for example:

Go through the Behavior Inventory Questions

We all know that each child is different when they come to the Head Start School. So that his/her teacher can be of most help to (child's name), we would like to find out from you some of the things he/she knows, for example,

Go through the Preschool Inventory Items

As part of the program that (child's name) is in, the school will be giving little prizes for good work that the children do during the week. This part of the program will last for about three or four weeks, so your child may be bringing home things he earned in school.

I would like to thank you for coming here today. In about two months, we would like you to come back so that we can discuss (child's name) progress and future school placement. What time during the day is most convenient for you? We will try to arrange this time for your next visit, and we will notify you by letter of your appointment beforehand.

If you have any questions about (child's name) progress in the program, please feel free to notify (principal's name). Goodby, thank you, and we will look forward to seeing you again.

APPENDIX G

February 28, 1967

Dear

Your child ____________________ has been enrolled in our Head Start Program for about five weeks. During registration we informed you that as part of this program we would ask you to come back to the school to discuss __________________ progress and future school placement.

We have set the appointment time you asked for which would be most convenient for you. There will be someone here to speak with you on this date and at this time:

If the above appointment is inconvenient for you, please call WA 6-4112 and tell us when it will be convenient for you to be here, and we will make another appointment for you.

Thank you for your help. We appreciate your cooperation as we work together for the good of your child.

Sincerely yours,

Mrs. Dorothy Ebert, Principal
Ortega School
1135 Garland

DE:lab

3

APPENDIX H

Parent Interview

Parent Name ____________________ Date ________________

Child's Name ____________________ Interviewer __________

School ________________________

1. Did your child bring anything home from school?
   Yes _____ No _____

   If "yes" is checked, ask what it was and record response:

   ____________________________How often? ________

   If "no" is checked, or if no mention of fruit is made, disregard the next question.

2. Who usually ate the fruit? Whole family ____________

   Father ________________

   Mother ________________

   Child Only ______________

   All Children Only __________

   Other ________________

We want to thank you for coming here today. We hope your child continues to do well in school, and if you have any questions in the future, please feel free to call the school or come by.

VITA

David Marc Mandel, the son of Morris and Mary Mandel, was born in Cleveland, Ohio, June 21, 1936. After graduating from Collinwood High School in June, 1954, he entered the U.S. Air Force and studied Mandarin Chinese at the Institute for Far Eastern Languages, Yale University, New Haven, Connecticut. During the period from the summer of 1955 until November of 1957, he spent the remainder of his active duty in the Far East. He received the degree of Bachelor of Arts with a major in psychology and a minor in social science from San Fernando Valley State College in Northridge, California, in June, 1963. He was employed as a counselor with the Los Angeles County Probation Department from July, 1963, until September, 1964, when he entered the Graduate School of The University of Texas. He was employed as a research associate with the Child Studies Division of the Research and Development Center for Teacher Education during 1965-1966, and was a Study Director for the Child Development Evaluation and Research Center during 1966-1967. Also during 1966-1967, he was a teaching associate in the Department of Educational Psychology. In September, 1967, he will be receiving post-doctoral training as a clinical-child psychologist at the Devereux Foundation in Devon, Pennsylvania.

Permanent address: 15324 Shiloh Road
Cleveland, Ohio

This dissertation was typed by Lois Nelson Winn.

F-OEO
PS

FROM:
ERIC FACILITY
SUITE 601
1735 EYE STREET, N. W.
WASHINGTON, D.C. 20006